The
NATION'S SCHOOLS
DEVOTED TO THE APPLICATION OF RESEARCH TO
THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME XI JUNE, 1933 NUMBER 6

Equality of Opportunity—The Great American Dream

Confusion of thought, inertia of habit and opposition of vested interests tend to obliterate the tradition which has always been a major force in determining our conduct as a people

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AMERICAN history, unlike that of the great powers of the Old World, begins with marked abruptness. The story, starting only four short centuries ago, unfolds itself in the full light of modern times. Its central interest lies, not in the activities of a small group of glorified heroes and leaders, but in the fortunes of the common man. Its special significance, says a modern writer on civilization, lies in the emergence and development of the "American dream of a better, richer and happier life for all our citizens of every rank."

This "American dream" in its relation to education is my text. Although the span of American history is brief, it has produced a distinctive mental pattern, a unique outlook or spiritual attitude, a sustaining national tradition. To understand this tradition, commonly known as equality of opportunity, it is necessary, historians agree, to take special account of the molding influence of the American frontier.

This influence required time to make itself felt. The first colonists did not at once become Americans. They were not filled with a consuming desire to achieve equality of opportunity. On the contrary, they were transplanted Europeans, who tried to live according to ideals brought from the Old World. They struggled manfully to make America look as much as possible like Europe. The new social order they brought into being had a ruling upper class and a disfranchised lower class; it determined the rank of students in Harvard College by social position; it cultivated distinctions of dress and manners; it maintained in the South a landed gentry through the system of primogeniture; it dealt harshly with persons who disregarded the prevailing religion and social custom. The early colonists kept to the old ways, so far as circumstances would permit, and developed a culture thoroughly European in spirit.

In the long run, however, environment proved too powerful. When the flood of population finally broke through the barrier of the Appalachian Mountains and spread itself over the Mississippi Valley, European customs were gradually left behind. In the great open spaces of the Middle West social rank had little meaning. One man was as good as another. The frontier set its own standards, based largely on the law of survival of the fittest. It was much more important that a man should be courageous, self-reliant, resourceful and persistent than that he should have a grandmother who had been presented to the queen.

A new era had begun. The common man was coming into his heritage. The frontier was a magic solvent of all the social distinctions and stratifi-

cations that had piled up during centuries of European history. The common man gloried in his commonness. The aspiring politician found it more of an asset to have been reared in a log cabin or even on the sidewalks of New York than to have descended from a line of belted knights. Politically, a distinguished ancestry might easily prove to be a handicap.

Frontier Distrusted Government

Even after communities became settled and affluent, the spirit of the frontier continued to make itself felt. So long as men could go West and grow up with the country, there was little chance of developing the social stratifications of the Old World. The frontier line continued to recede across the interminable western plains, but it persisted as a major factor in shaping the life of the nation until finally the spirit of the frontier became embedded in the national tradition. This tradition embraced faith in the common man and in the supreme and ultimate value of personality; it required every man, as a solemn right and duty, to stand on his own feet and to exercise independence in thought and action.

This tradition has been called the "American dream of a better, richer and happier life for all our citizens of every rank." Back of it lay an implicit faith in the inherent worth of the common man, in the untutored wisdom of the plain people. Equality of opportunity was guaranteed, not by the social order, but by the frontier. The resources of the continent were at the disposal of all comers. The period of frontier development was closely related in time to the period when a world-weary civilization loved to talk, through spokesmen like Rousseau and the Romanticists, about a state of nature in which men could be themselves, unhampered by social and governmental restrictions, and could develop in accordance with the divine image in which they were created. Poets spoke feelingly of the "noble savage" and claimed, with Pope, that "the state of nature is the state of God."

This general feeling of distrust of government was shared by the men of the frontier. They were naturally sympathetic to the notion that the great dream required freedom from the mass of social conventions and governmental restrictions they had left behind. Such freedom, plus the opportunities offered by the frontier, was considered sufficient to make a democracy. In other words, the frontier not only gave impetus to the dream of a better, richer and happier life for everybody, but it was also supposed to provide the conditions for its realization.

This conception of democracy has an attractive simplicity but it underestimates the importance of social organization in the development of the individual. The frontier undoubtedly developed certain admirable qualities. But lack of social relationships sharply limited the range of these qualities. Esthetic appreciation naturally found little encouragement in the desperate struggle with an unfriendly environment. Sustained social cooperation had little place in the affairs of the thinly populated settlements. Intellectual stimulation extended only a short way beyond the exigencies of everyday life. Hardship, privation and appalling loneliness were the common lot of the pioneer family. Education, even under favorable conditions, was confined to the rudiments. Ability and character had almost no avenue of expression except the accumulation of property. Narrowness and superstition were the inevitable products of such conditions, unsoftened by the amenities that spring from more intimate social intercourse. Perhaps there was a picture of such conditions in Tennyson's mind when he said: "Better fifty years of Europe than a cycle of Cathay."

Jefferson's Common Man Was a Farmer

Apparently these limitations were not evident to the frontiersmen themselves. Perhaps the frontier could not admit its shortcomings candidly without destroying its morale. At any rate, those traits for which there was no adequate opportunity of expression were severely discounted. Esthetic appreciation was considered effeminate and effete. Need of companionship and social intercourse was regarded as the mark of the tenderfoot. Scholarship was dismissed contemptuously as "book learning." On the other hand, qualities that were useful in frontier life were exalted and the fearful drudgery became endurable when invested with moral and religious sanctions.

Even before the frontier ceased to exist as a physical fact, it passed over into the realm of literary romance. Fiction writers like Bret Harte have labored industriously to create for us a golden age in which the great American dream had come true. These writers made it an age of men reared on the bosom of nature and endowed with astounding heroism, nobility of spirit and refinement of sentiment. The grammar and the table manners of these dashing figures might fail to meet the requirements of polite society, but underneath those rude shirts were hearts of purest gold. By the standards of the artificial social order in which they were born these men were perhaps outcasts and criminals, but in these new surroundings, where men were men, they rose to a new stature and became the true Americans. Thus the American dream was transformed into a daydream. It became a lingering recollection of something that

never happened, of a fulfillment that never took place, of a West that never existed.

Faith in the common man appears to have been tinged throughout with this romantic notion of an inherent nobility in every individual, which, if given the chance, will express itself as the result of an inner development. From this standpoint the chief function of government is to protect the individual against outside interference. Government must have very limited functions and must, so far as possible, be local in character. This conception of government very soon became an issue in our political life. At the very beginning of our nation, Thomas Jefferson appeared as the spokesman of the common man. It is significant that Jefferson's common man was not the man with a job in town, but the small farmer out in the country. The realistic Hamilton, on the other hand, was utterly incapable of recognizing the voice of the farmer as the voice of God, and advocated the traditional doctrine of government by a special and privileged class. Jefferson's advocacy of the common man has linked his name for all time with the American dream; but Jefferson emphasized the protection of the individual against the encroachment of government, not the responsibility of government to provide equality of opportunity through industrial and economic organization.

The strength of Hamilton's position lay in his deeper perception of the meaning of social organization in the development of character and capacity. His weakness was his insensitiveness to the great dream which kept him from dealing with social organization simply as an instrumentality for the development of spiritual values in all members of the community. Jefferson discounted social organization to the point of making the development of personality independent of it; Hamilton emphasized social organization to the point of making the individual subordinate to it.

Are We Hypocrites?

American tradition to this day has been Jeffersonian rather than Hamiltonian. The area of governmental functions has been extended enormously, but we still cling to the fiction that these functions are employed for the purpose of giving every individual plenty of elbow room, as in the days of the frontier. We talk about maintaining the American way of life, but we make this a cover for subordinating the interests of the many to the interests of the few.

The result is an astonishing gap between theory and practice. In theory we hold to equality of opportunity; in practice we have surrendered political and economic control to the great corporate units that shape our destinies. In theory we hold to the inalienable right and duty of each individual to develop his God given powers; in practice we measure success in terms of possessions and income. In theory we endorse independent thought and action; in practice we insist on conformity. A historian recently said, "We talk like Jefferson, but we act like Hamilton."

Era of Individualism Is Ending

Does history record a confusion of mind comparable to this? When the children of Israel forsook the Lord and went wandering after strange gods, we may assume that they knew what they were doing. They were not confusing Baal with Jehovah, for example, but were merely expressing a preference for Baal, for the time being. In the case of the American people, however, the consciousness of sin appears to be lacking. We profess an abiding loyalty to the doctrine of equality of opportunity, but if anyone undertakes to point out to us that our industrial and economic order must be reorganized in order to secure genuine equality of opportunity, we feel morally outraged and we begin to suspect that the offending person is being financed from Moscow.

Perhaps this is an overstatement. Possibly we are less sure of ourselves than we have been in the past. The adolescent spirit of an earlier day, with its swagger, its schoolboy optimism, its complacent conviction that we are the chosen people, is giving way to a mature and sober self-criticism. We have come to doubt whether the civilization we have built on the foundations laid by the men of the frontier is really as glorious as we had supposed. The present economic collapse is driving home the truth that the era of individualism is coming to an end; that character and average intelligence do not guarantee a competency; that the social organization must enlarge its responsibilities and widen its purposes. We are outgrowing the individualism of Jefferson and the frontier. Equality of opportunity must be guaranteed, not by nature, but by the social order. Our golden age is not in the past, but in the future. Our heritage from the past is not a finished product but in many essential respects still a dream.

This discovery is naturally disturbing. Where does it leave us? We can no longer take refuge in the comfortable belief that there is a law of perfection in each individual which will come to full expression if we let him alone. There is no such inner standard for the regulation of conduct. The clue to standards of conduct must be sought in social relations and nowhere else. If so, then we can hardly escape the conclusion that our standards of right and wrong have been handed down to us from the past and that they were formed

under conditions different from those of the present time. Unless we revise these standards, equality of opportunity will become an empty phrase and the brightest hope of humanity will fade away.

In view of the fearful maladjustments in contemporary civilization, it is perhaps not altogether to the discredit of modern youth that it refuses to accept the standards of the past as final authority. Sometimes I have an uneasy suspicion that they show more sense than we of the older generation. They will not grant that the experiences of an earlier day are sufficient for present guidance. But these young people, despite their unnatural precocity and worldly minds, are still Americans. Talk to them about the great dream, soberly and without sentiment, and they will listen. But to do this to any purpose, our own vision must be clear. If we are not to look for ready-made standards, either within the individual or in the social order, it is evident that we must continually create and recreate our standards in conformity with the requirements of our ideal. It becomes our task to build a social order in which the great but inchoate dream of the frontier will find meaning and fulfillment.

Real and Imminent Dangers Threaten

What will this social order be like? I am neither wise enough nor foolish enough to try to answer this question. I feel sure that it will be strikingly different from the present order. It will involve economic reconstruction, but it will include a great deal more. Economic justice, indispensable as it is, is significant as a means to an end. We can scarcely hope to reach the millennium merely by making every person a consumer of radios and automobiles. If we have no purpose beyond this, the great dream may easily turn into a nightmare. The ideal of a better, richer and happier life for everybody has a deeper meaning than this or else the struggle for economic justice is not worth the candle.

The social order of which we dream will be concerned primarily with the development of capacity or personality; which is only another way of saying that all our institutions will be judged, in the first instance, by an educational test. We can talk about such a social order, but we can scarcely visualize it in advance. Nor is it easy to sketch beforehand the change in outlook, in attitude, in intellectual and emotional responses that must take place if equality of opportunity, the full development of personality, is to become, in truth, our final criterion of value. It would mean development of motivations which, in our present competitive and commercialized conditions of industry, remain submerged. It would mean a revision of the whole mass of biologic, psychologic, ethical and theological notions which now block the way.

It is quite possible that when we catch a clearer view of this distant scene we shall cease to be attracted by it. We may in the end prefer to retain the old familiar beliefs and to surrender the dream of equality of opportunity. But in any case the time has come to reexamine the tradition. We cannot afford to continue on the old basis of makeshift and confusion of purposes. The dangers threatening our civilization are too real and too imminent. There is ample basis for the faith that as the implications of our belief in equality of opportunity are more clearly understood, the idealism of the American people will rise to new levels of achievement. At present, however, this idealism is inhibited and paralyzed because there is no clarity of vision. As the prophet said of old: "My people are destroyed for lack of knowledge."

How is this clarity of vision to be achieved? At this point we turn naturally to the schools. As a people we are confused regarding our basic aims and purposes; we are confused regarding the meaning of our national tradition. This is only another way of saying that we fail to read the record of human civilization in the light of our tradition. When we review the achievements of the past, in the field of physical sciences, in biology, in industry, in government and in art, for the express purpose of tracing the bearing of these achievements on freedom and equality of opportunity, the whole perspective changes. When we see how every important advance also created new obstacles to further progress, how truth and falsehood were intermingled, how old obstacles have not been completely removed but persist into the present, it soon becomes apparent that we have not thought the matter through.

Frontier Spirit Kept Out of Schools

We can become intelligent concerning our national tradition only by gaining an understandig of the issues and conflicts involved in it. These issues and conflicts extend to every important domain of life. To bring them into the open is the inescapable obligation of the schools. The schools can no longer be content to transmit the cultural achievements of the past. They must open up a new frontier. But this involves reorganization of our educational system, almost as appalling an undertaking as the reorganization of the social structure itself.

Schools have shown little sensitiveness to this obligation up to the present time. It is a paradox of our American life that we have usually contrived to keep the much lauded spirit of the frontier out of the schools. This exclusion was readily under-

standable on the frontier itself where the schools confined themselves to the inculcation of "tool" subjects. Creativeness and independence in thought and action were considered out of place in subjects like spelling and addition. As the school system developed, the notion that the social order was essentially perfect from the start made the cultivation of the frontier spirit seem superfluous. So we were content to praise this spirit, with the tacit understanding that the matter was to go no further. If the social structure we have inherited is regarded as fundamentally complete and final, it follows logically that the chief business of the schools is to acquaint the pupils with this structure and to cultivate a type of citizenship that can be computed on a percentage basis.

Certain interesting movements have appeared in American education since the beginning of the century. One movement places emphasis on the importance of creativeness, resourcefulness, individuality, independence in thought and action. It is strangely reminiscent of the frontier spirit and also of Jeffersonianism. In all talk about cooperation and shared activity we rarely get far beyond a vague spirit of general helpfulness and good will.

Another movement draws its inspiration from the Hamiltonian insight that development of character and capacity is bound up with social relationships. In the end, however, the attempt to promote social efficiency leads simply to a miscellaneous collection of specific objectives. The whole emphasis in this case, as in the case of Hamilton, falls on the molding of individuals according to certain set patterns, not on the progressive remolding of these patterns in the direction of a true democracy.

Education Must Lead the Way

Perhaps there is comfort in the reflection that education has, at any rate, come as far down the line as the year 1800. It was from that time on, if I have interpreted our historians correctly, that the frontier became a dominating force in the shaping of our tradition. Perhaps the time is at hand when we shall cease to be Jeffersonians or Hamiltonians and become educators; when education too will have a frontier; when it will look forward as well as backward; when it will recognize the supreme need of exploring the meaning of our tradition and the conditions for its fulfillment.

The Middle Ages built an educational system around the idea of a life beyond the grave. The Renaissance set up as the supreme end of education perpetuation of the spirit of Greece and Rome. The schools of prewar Germany had as their center the supremacy of the state and of German *kultur*. Our educational opportunity lies in rediscovering the faith to which, as Lincoln said, this nation is dedicated, in order that it may not perish from the earth.

We are the heirs of a great tradition. For the place of this tradition in our national life we are indebted to the influence of the frontier. Throughout the century and a half of our national existence, this tradition, despite confusion of thought, inertia of habit and opposition of vested interests, has been a major force in determining our conduct as a people. But the appeal of the tradition has been to our emotions rather than to our intelligence. Time and circumstance have made it necessary to achieve a deeper understanding of the meaning of this tradition if we are to avert defeat. The call to education is clear. It must lead and not follow. It must keep the frontier always open, if the early promise of our history is to come true and equality of opportunity is to remain the inalienable right of every citizen of this country in the years ahead.

Free Textbook Movement Gains in Public Schools

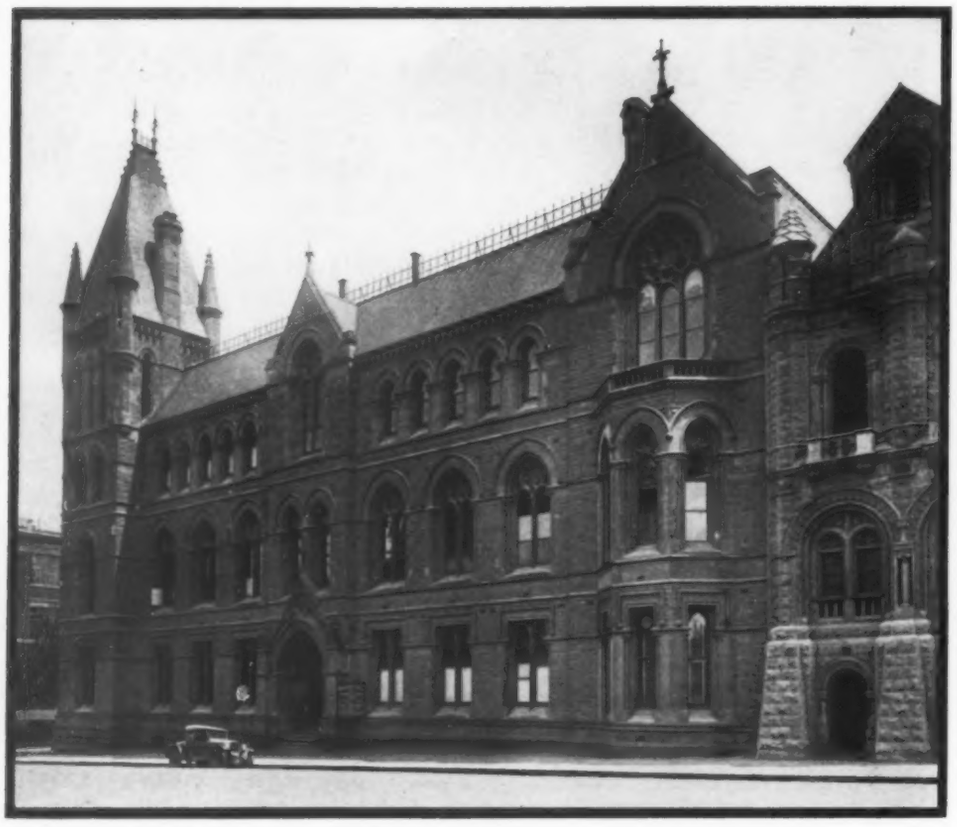
Continued growth in the movement for free textbooks in the public schools is shown by the principal provisions of state laws relating to textbooks for public school children, according to a recent study by Ward W. Keesecker, specialist in school legislation, U. S. Office of Education.

At the opening of 1932 laws which require free textbooks for public school children were in force in twenty-three states and the District of Columbia and twenty-two other states were found to have laws which authorized local school corporations to establish free textbook systems.

States that do not provide by law for free textbooks for all school children have laws that authorize public aid for providing textbooks for dependent or neglected children.

Most of the objections advanced against the free textbook system arise from the improper administration of the system rather than the system itself. Proper adminstration, care and disinfection of free books remove many of the objections to the free system. As to the expense of free textbooks, it has been shown that their cost averages from 1.4 to 2.16 per cent of the total current cost of public elementary and secondary education.

Whatever may be the reasons against free textbooks, the facts remain that the free textbook movement is widespread and is gaining ground, and that, apparently, no state that has put into operation a state free textbook system has ever abandoned it.



The adult education movement has made great strides in Australia, and in Melbourne much of this work is carried on at Workingmen's College.

Are Centralized Education Systems Formal and Bureaucratic?

The experience of Australia proves that there is nothing to fear from centralization provided the right type of school officials are placed in control and team spirit is developed in the educational community

By FRANK TATE, President, Australian Council of Educational Research, Melbourne, Australia

AUSTRALIANS who visit the United States or who study her school systems from afar observe two conflicting tendencies. On the one hand, they encounter an insistent and widespread demand for increasing centralization of support and control. On the other hand, they discover that in the majority of American states decentralized control and support are the rule. Moreover, taking the country as a whole there seems to be widespread hostility to any suggestion that minor school units or districts be abolished and that the state assume complete responsibility for establishing, supporting, maintaining and directing all public schools which are within her boundaries.

Despite the recent establishment of state systems by Delaware and North Carolina, the majority of commonwealths constituting the United States cling to decentralized plans and, even more significant, appear to regard highly centralized organization, support and control as inseparable from autocracy, rigidity, overstandardization and the death of all active, vitalizing interest and initiative on the part of local school authorities and teachers. To many American educators the choice seems to lie between centralization accompanied by efficiency, autocracy and death to local interests, and blundering decentralization accompanied by inequalities and inefficiencies.

Such, briefly, is the situation and such are the conflicting attitudes and tendencies underlying this attempt to describe and evaluate the charac-

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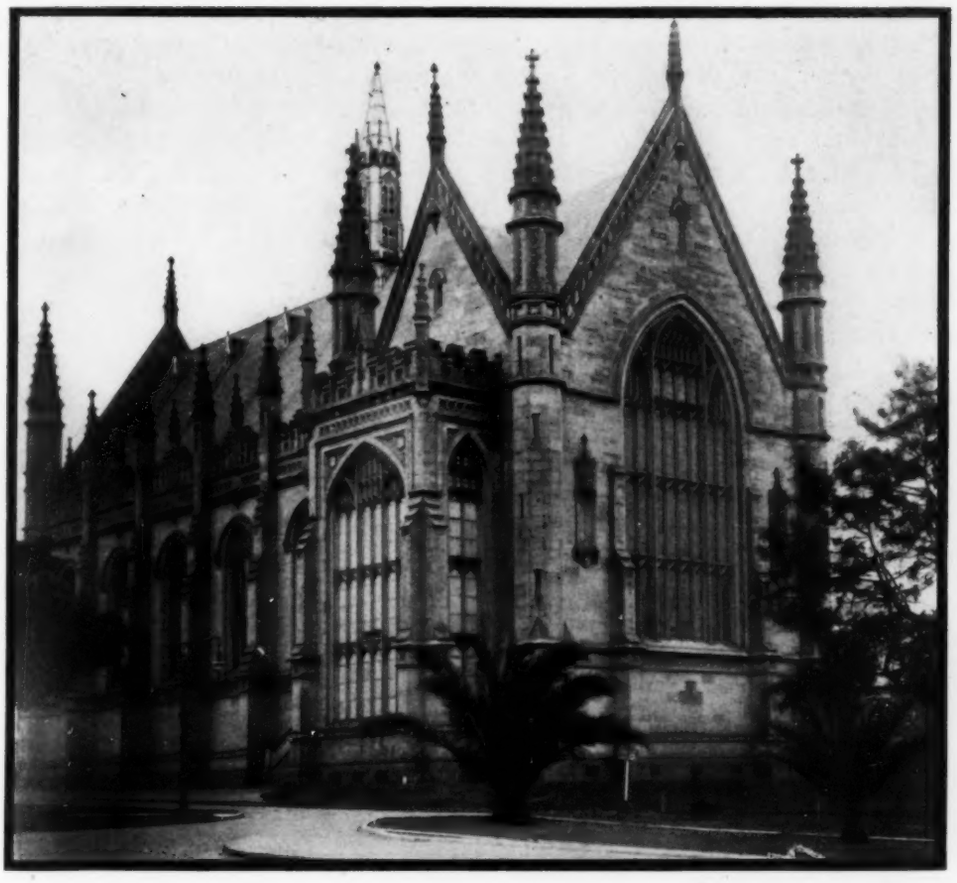


Melbourne University is representative of the progress in higher education in Australia. Wilson Hall is one of the outstanding buildings.

teristics and effects of one of the most highly centralized public school systems in the world—that of the State of Victoria in Australia. I shall endeavor to compare within limits the outcomes of this system with those of systems found in the United States. My point of view and conclusions are the result of fifty years' association with Australian schools as teacher, as inspector, as principal of a teachers' college and as director of education in administrative charge of the school system of Victoria for twenty-six years.

It may be well to point out that the Commonwealth of Australia is divided into six sovereign states: New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania. Each of these states has its own governor, its own parliament or legislature and its ministers in control of various departments.

Education is a state rather than a federal concern and there is the same determination in Australia as in the United States to resist any intrusion of federal authority into educational administration. But whereas there are, I am informed, no fewer than 145,000 school boards in the forty-eight states of the Union, each charged with the control of the schools within its jurisdiction, there are in Australia, a continent nearly as large as the United States, only six educational authorities—the six state departments of education. The Victoria state department of education not only supervises education but is responsible for the establishment of schools, providing, erecting, equipping and maintaining school buildings, the appointment, promotion and transfer of teachers, the course of study and all details of administration. The whole cost of public education is paid from the consolidated revenue of the state and appropriations for this purpose are voted annually by the state parliament.

The Minister of Education, who is a member of the state cabinet, is not necessarily an educationist. It is therefore necessary, in order to give permanence and intelligent direction to the educational policies of the state, that he be advised by a permanent head, an expert educationist. This function is filled by an official known as the Director of Education, who with his staff of expert professional officers and a business and clerical staff, is responsible under the minister for all administrative detail.

Teachers are public servants and enjoy security of tenure. They are classified, appointed and promoted by methods prescribed in the various public service acts. They may be promoted or demoted by a statutory committee and their services may be readily terminated for inefficiency or misconduct, after a public service inquiry. Members of the legislature, including the minister, and members of

school committees have no voice in determining a teacher's appointment to a given school. Regulations provide that teachers who seek to obtain preference by undue influence are guilty of serious misconduct.

To one familiar with Australian methods of appointing and promoting teachers, it comes as a surprise to find that when the National Education Association here conducted an inquiry as to the six most common and unethical practices among American teachers, one of those most stressed was "cultivating friendships among board members and their families in an attempt to exercise a pull." I can assert without reservation that in Victoria, my own state, political and other outside influence is nonexistent. Teachers are judged by their official records built up year by year upon the reports of skilled supervising officers. Another feature of American education which is strange to Australians is the limited tenure of expert administrators. An educational program may require years to become effective and a man who is to work with faith and energy for its realization should surely be able to count upon security of tenure.

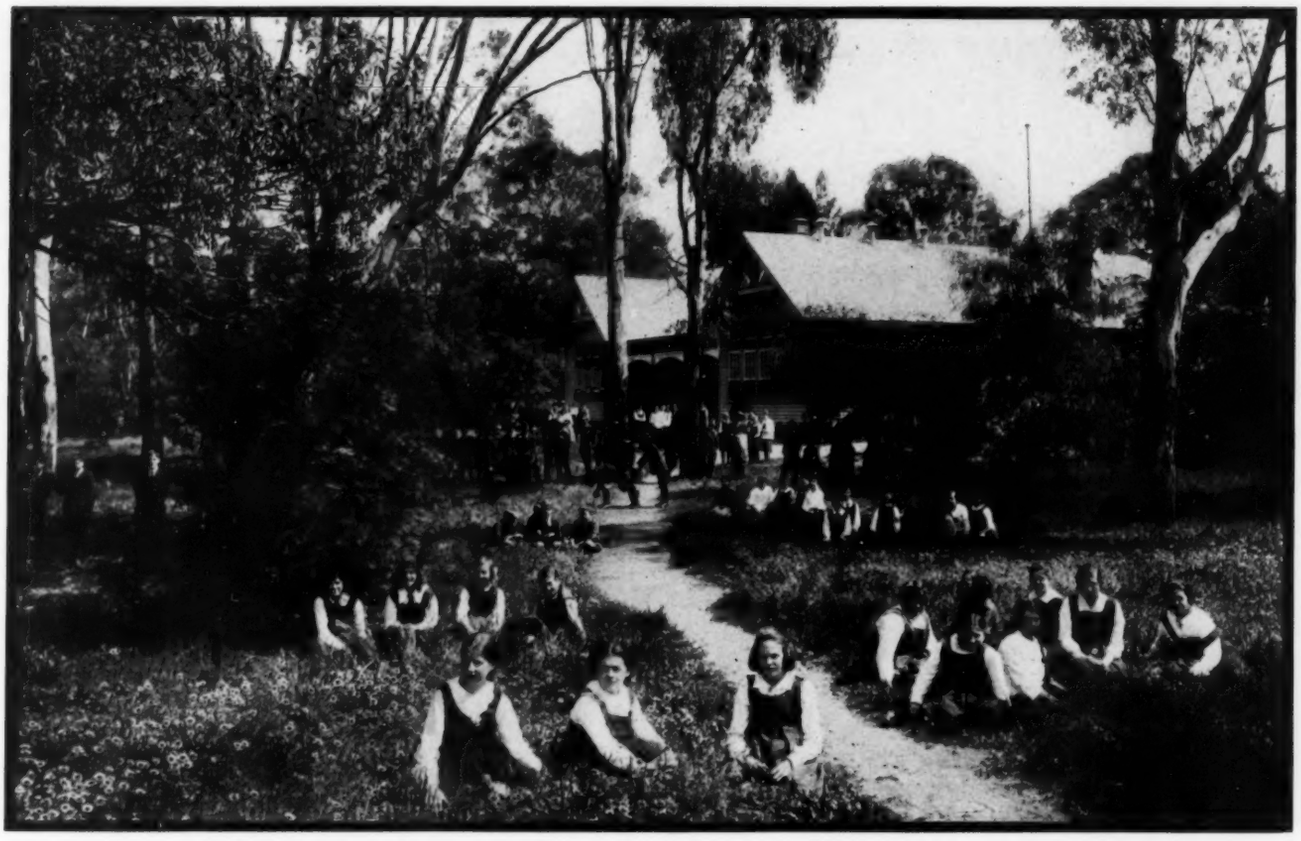
Although each of the six Australian states developed its own education system independently at a time when the states were somewhat suspicious and jealous of each other, each adopted a highly centralized form of administration as giving a better chance of equality of opportunity. One of Australia's most serious questions is the settlement of people on the land and their retention there. Unless the rural worker is assured of good educational facilities for his children he will not willingly remain in an isolated area.

Not even the most ardent Australian would claim that centralized administration is free from serious dangers. Nevertheless, in a state where the interests of rural people are given due and fair consideration by the legislature, centralization does result in providing the country child with as good an elementary education as the city child. We claim that on the whole our small schools, with one and two teachers, are as efficient as our city schools, that they can compass as broad a curriculum and in all essentials attain as high a standard.

In my own state it is the invariable rule that our young trained teachers must accept service in country schools. Moreover, a teacher cannot rise through the service to the highest positions without going back to the country to the charge of comparatively small schools of one hundred to two hundred pupils. In this way we secure a flow both ways which improves both country and city school work.

One distinctive contribution which Australia has made to education has been the development of an organization and a method in its one-teacher schools. The number of school days per year is the same for country as for city, the courses of study are, save for local adaptations, organized on similar lines, the children of country and city compete together for state scholarships. I stress this fact because I understand that one of the pressing problems in the United States is the improvement of rural schools and the equalization of educational opportunities, especially in rural sections. In a previous visit to this country I was struck by the contrast between the palatial school houses of the wealthy cities, the equipment of their classrooms and the qualifications of their teachers and the conditions in country areas where the local author-

Melbourne High School for Boys is the best appointed high school for boys in Victoria.



Adequate facilities are provided for rural education. This typical high school is at Echuca, Victoria.

ity was unskilled, indifferent or unable to command the necessary resources for maintaining a worthy school. In Australia it is to the interest of the local folk to bring pressure upon the minister through the parliamentary representative to have a school established and efficiently maintained. Thus they secure a benefit which does not entail any special taxation upon themselves and they have every reason to agitate for better conditions.

I understand that various proposals have been made in America for "equalization" of school opportunities by financial assistance to small communities or to less prosperous ones. Whether these grants are made by state or federal authority there will almost certainly be provision for some effective supervision as a condition of the grant. Your people, both trained educationists and local board members, have a deep-rooted distrust of any interference with local initiative and local control. The experience of Australia fails to justify the fears frequently expressed not only here but in other countries where local authorities have large powers and responsibilities. A recent report published in England contains the following statement: "The chief administrative officer is frequently meeting these district subcommittees and finds in them a never failing check to the bureaucratic or dictatorial methods of a centralized form of administration."

When I read statements of this character I am amused. I recall how the director of education in Melbourne proceeded to make a complete revision of the course of study for elementary schools. A select but comprehensive committee consisting of administrators, representatives of the school of education of the university, school teachers and laymen was placed in charge of the project. In every inspectorial district with its seventy or eighty schools of different types the inspector of schools had set up a local committee to formulate the opinions of the district upon the questionnaires sent out from the central office. As the work developed, suggestions were being discussed in local conferences. The whole scheme was an instance of intelligent and widespread cooperation with good will, the easiest of matters to secure under such an organization.

Of more than 10,000 teachers not one was left out of the inquiry for it was clearly understood that a course of study would be effective only to the extent that the teaching force was able and willing to teach it. Surely these are not bureaucratic or dictatorial methods. The fact is that bureaucratic and dictatorial methods may be found under a small local authority and a highly centralized and extensive system may be free from them. It all depends upon the outlook and the tradition of the men in charge of the system.

It is often charged that centralized administration must inevitably lead to a loss of interest in their schools on the part of the local people. During the past ten years I have been privileged to visit schools in many countries including most important parts of the British Empire. I have seen in Australia more evidence of interest in the well-being of the local school than I saw in visits to village schools in England, in South Africa and in New Zealand. In all of these countries the people and local authorities have a large share in school administration.

In Australia we have local school committees and parent-teacher associations. These bodies, stimulated by the central department, by the local supervising officer and by the teachers, do a great deal for the school especially in improving its environment. In Victoria during a seven-year period, more than $1,000,000 was raised voluntarily and expended upon the local schools for objects which were desirable though not essential. To this sum must be added the value of work done by working bees in providing improved playing fields, swimming pools, agricultural plots and school gardens. Willingness to subscribe to local school funds and so make our school "the best school of all" is a good indication of local interest. A school function in Australia attracts the whole countryside.

South Melbourne Technical School is representative of the type of buildings provided for technical training.

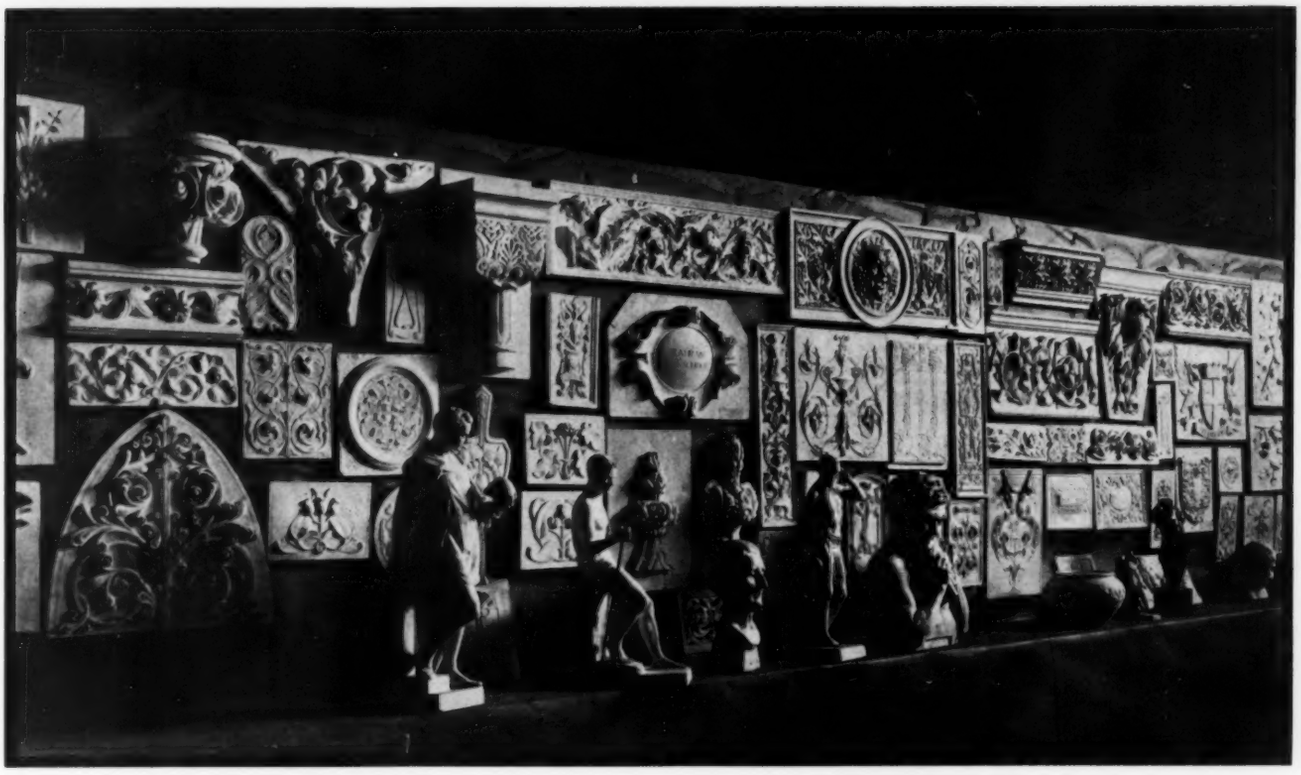
One of the real dangers of centralization is that an unprogressive administration may fail in its duty to put before the community a progressive policy to meet the necessities of a changing world. Without some measure of local autonomy, it is not easy to educate public opinion and bring pressure to bear upon those who should be in the lead. This danger may be amply cared for in various ways. One method would be to create and endow a research council to do its work unembarrassed by dependence upon any state authority. This has actually been done in Australia through the grants of the Carnegie Corporation of New York which has endowed the Australian Council for Educational Research, a body independent of any education department.

How advantageous is a highly centralized system under wise leadership may be illustrated by a single example. The Australian Council for Educational Research prepared standardized arithmetic tests for the schools of Australia. The executive officer approached the six departments and secured their good will. Some tons of papers were printed and dispatched to each capital city where a local committee had already selected typical schools in all parts of its state. During the same two weeks, in every part of the continent, the arithmetic tests were given in hundreds of schools, the children's work was checked and the papers sent back to Melbourne for compilation of statistical results.

Teachers Don't Lose Their Enthusiasm

Another defect attributed to our form of administration by those who argue *a priori* is that teachers and administrators, if given the status and permanent tenure of public servants, will lose their enthusiasm and adopt the "government stroke" in their work. Two or three recent instances taken from my experience sufficiently refute this charge. When the prevailing depression reached Australia and general unemployment made us familiar for the first time in history with widespread poverty, our senior teachers got quietly to work. Without publicity they devised a plan under which the metropolitan schools were classified in three divisions: those which could look after their own poor and needy and no more, those which could do this and also send help to others and those which needed help. This organization was working effectively for months before there was any widespread public knowledge of it, and we have never heard of any distressing cases of underfed and underclothed children that were not adequately and promptly handled.

Our teachers are among our best citizens. During the World War they did notable work in organizing the schools for relief work. The school organization in Victoria was active from the first week of war in 1914 until its close four and a half years later, and during that time the labor of the youngsters and their corporate efforts brought in money and goods to the value of over $3,000,000, every cent of which was allocated by a committee of teachers. At the close of the war there was a balance of more than $400,000. This balance was carefully invested and is now being expended by the representatives of the teachers for the benefit of disabled soldiers. A service which can carry out such a work for more than eighteen years has both energy and the spirit of service.



Samples of some of the beautiful art work done by pupils in Prahran High School, Victoria.

Twenty-five years ago a committee of teachers of the School Horticultural Society approached me with a request for permission to form a horticultural nursery on the grounds of one of our city schools. The request was granted. The School Horticultural Society flourished. Soon it had members all over the state. A valuable property was bought and today the nursery is one of the largest in Australia. It employs propagators and gardeners, it has practically all of the schools in its membership, and, save for a small grant of three thousand dollars per annum, the whole of the expense is borne by the schools.

Each year the nursery distributes to its members thousands of plants, seedlings and bulbs and at the great horticultural shows it frequently wins prizes against the best growers in the state. It provides city schools with hanging fern baskets and window boxes and renews these periodically. In suitable localities children are taught to save special varieties of seeds. These are packeted and labeled and sent out as a gesture of good will to the nursery for distribution to other schools. Here and there throughout the state an enthusiastic teacher or group of teachers may specialize in the cultivation of some flower, such as the dahlia, and distribute stock.

The education department wisely cooperates with the teachers and uses the nursery as the chief center for all horticultural instruction. The supervisor of school gardening has his office there and summer schools for teachers and correspondence courses are conducted in the nursery hall. The men and women behind this movement certainly do not show any inclination to adopt the "government stroke" or any deficiency in the true spirit of service.

In Australia as in other pioneering communities forests have been sacrificed, and today an urgent problem is to save the existing forests and develop a forest consciousness in the people. In Victoria we have put before the schools the duty of endowing the school of the future by establishing school forests of fifty acres planted at the rate of two acres a year. The forest commission heartily supports the plan and makes available to the local groups the services of their experts. Suitable areas are obtained, usually from government lands. The local people help in leveling the ground and fencing it. Children grow pine seedlings and plant them under direction.

Planting day is usually a great function attended by the whole countryside. The forest program was begun in 1923 and not hurried, for we wanted to avoid failures. There are now more than 280 school forests, most of them growing vigorously and promising to return in a few years a handsome revenue which must be applied to some purpose connected with the local school. To show how the team spirit has been developed, I may mention that in some cases a city school has provided the cost of the fencing for a small country

school and has gone into partnership with it. On planting days it sends a strong contingent of city boys and girls to take part. The influence of this movement has been felt in the United States and a plan based upon the Australian work has been inaugurated in Wisconsin.

My purpose in this article has been mainly to try to show that a centralized system of educational administration is not necessarily formal and bureaucratic, that such a system may secure a large degree of cooperation from agencies outside the official circle, that methods do not necessarily become static and unprogressive and that teachers and officials do not lose the spirit of progress.

One outstanding educational problem of the United States is the improvement of schools in poor and thinly populated areas. One solution is to move toward larger units of administration. State authorities have for years been extending their jurisdiction and improving the quality of their officials and it is evident that the United States is moving, if slowly, toward more and more centralization. To those who fear the results of this tendency, Australia's experience proves beyond all dispute that there is nothing to be feared from centralization of a high degree provided the system is placed under the direction and control of the right type of school officials and there is developed in the educational community the team spirit —officials, teachers and parents working together for the well-being of the youngsters.

That both of these things can be done under a highly centralized system the experience of Australia fully shows. That neither is ensured by a decentralized system may be as convincingly shown from a study of the school situation in many communities in the United States, England and elsewhere.

How Medical Inspection Service Has Developed in Schools

In providing for the health and welfare of children in the schools, Europe anteceded America by some sixty years, according to Dr. Morris L. Grover, director of rural hygiene, public health commission of Rhode Island.

France took the initiative in 1863 when it passed a law requiring school authorities to provide sanitary conditions on school premises and to supervise the health of the children.

Germany was the second country to institute a system of health supervision of school children when, in 1867, in Dresden, an ordinance was passed requiring annual tests of vision. By the end of the nineteenth century every country of importance had instituted some form of provision for the health and welfare of the school child.

It is interesting to note the striking difference in the compelling motives which prompted the establishment of the first systems of medical inspection in Europe and in the United States. In Europe the prime consideration of the general health of the child led to the establishment of these systems, while in the United States it was the desire to limit the spread of infection in the schools that laid the foundation for these systems.

In the United States, school medical inspection may be said to have started in Boston in 1894, where, because of an epidemic, it was found necessary to send physicians to the schools.

During the last decade of the nineteenth century most of the largest cities in the United States instituted some form of school medical inspection. There are now twelve states which have laws making it mandatory to have school medical inspection in the various cities and towns.

Forty Days Added to School Terms in Last Sixty Years

School terms have increased an average of forty days throughout the United States in the last sixty years, ten of the days having been added between 1920 and 1930, according to E. M. Foster, chief statistician, U. S. Office of Education. Twelve states have terms more than 180 days in length. Mr. Foster said in part:

"In 1930, children had the opportunity to attend school on the average more than ten days longer than in 1920, due to the increase in the length of the school term during the decade. The average term for the United States increased from 161.9 days to 172.7 days in the ten-year period. States having short terms in 1920 could increase the term during the decade, but those having long terms already in 1920 had no such opportunity ahead of them. Therefore, Kentucky, which had a term of 123 days in 1920, increased it by forty-two days, more than two school months, before 1930. Nine other states, Alabama, Arkansas, Florida, Minnesota, North Carolina, Oregon, South Carolina, Tennessee and West Virginia, increased their terms by twenty days or more, approximately one school month. The data reported by four states seem to show a shorter term in 1930 than in 1920.

"It has been a long, steady pull to increase the educational opportunity offered the public school child from 132 days in 1870-71 to 172.7 days in 1929-30."

Why the School System Lacks Stability in Bad Times

National survey of school finance shows inadequacy of property tax as principal source of school revenue. Taxes collected by the state must flow into the localities for property tax relief

By PAUL R. MORT, Teachers College, Columbia University

THE financial emergency in state school systems arises from a number of causes. One of the most persistent causes is the noncollection of taxes; another is the vast burden of debt carried by many communities, coupled with the theory that property rights are sacred and must come before the welfare rights of the individual. In many states the bodies upon which education is fiscally dependent use funds to support municipal government at the expense of public education, through the process of loading unusual expenses upon the municipal government, thus depriving education of its fair share of tax returns. An example of this is the practice, in some communities, of placing items in the municipal budget to take the place of funds anticipated from special assessments on property which had been defaulted by the property owners.

Much of the difficulty now being experienced with property tax arises from the belief that the property tax is carrying an unfair share of the cost of government. The extent of this belief is indicated by numerous reports on taxation looking towards the relief of the property tax by means of various types of state aid. In the period from 1910 to 1930 more than three-fourths of the states decreased the percentage of the cost of state government borne by the property tax. This decrease, taken together with vastly increased revenue from gas and motor vehicle taxes, indicates a widespread attempt to bring about a readjustment of burden.

Local Support Soon Became Inadequate

Persons who have studied the problem agree with the general conception that property tax is required to carry an unfair share of the cost of government. This fact, together with propaganda furthered by taxpayers' associations during recent years, has played no small part in bringing about widespread property tax strikes. This problem is so far-reaching that the old type of equalization program developed during the period from 1874 to 1920 only partially meets the issue.

In spite of broad responsibilities placed upon legislatures to provide support for a thorough and efficient system of public schools, early plans developed in the various states provided for local support. This was in effect property tax support. While this plan might have been adequate at a time when a simple social order demanded less expensive education and when there was less concentration of wealth in limited areas within the states, it soon became apparent that such a system of financing schools could not obtain the results desired.

Delaware Inaugurates State Support

Massachusetts recognized this and passed legislation in 1874 providing that all state funds be granted to rural districts. This action was based on the theory that the rural districts were poor and the urban districts were rich. New Jersey in 1881 passed legislation giving the state board of education power to distribute certain funds to needy districts. These laws multiplied in the next few years until in 1920 practically every state had some law designed to give aid to its weakest districts. Many of these laws were looked upon as charity. After a district had levied all the funds that it could possibly or reasonably levy, it was given sufficient state aid to operate a meager educational program. About 1920 many persons began to realize that such a system of greasing the worst squeaks was not obtaining adequate results.

Delaware in 1921 established a system of complete state support for its educational program which went far beyond any of the theories advanced up to that time. This was quickly followed by the Maryland plan which was much more extensive than the original type of weak district aid, by the Edmonds law in Pennsylvania and by the analysis of the Educational Finance Inquiry, which gave a clear application of the principles involved.

A thoroughgoing plan adopted in New York in 1925 was extended rapidly during the next few years as a means of bringing about property tax relief in the abler as well as in the poorer sections. This New York plan centered attention upon the weakness of the whole taxation structure which, according to widespread judgment, placed too large a burden upon the property tax which was practically the only means available for local support of education. Further analysis of the problems involved in state support led to formulation of what is now known as the efficiency principle.

Local Burdens Transferred to State

While the equalization principle demands that the burden of a minimum or foundation program be distributed equally upon the people in all localities according to their taxpaying power, the efficiency principle demands, among other things, that government shall be financed in such a way that the tax available for the localities to finance their superstructure of education shall carry no more than its fair share of the cost of government. This means that the property tax must not be overburdened. Failure to realize this situation results in throttling of local initiative, upon which so largely depend those continued modifications which keep the educational program from lagging behind the changing times.

If the burden of government were not to fall unduly heavily upon the property tax, then other types of taxes would have to be used for the support of governmental activity. Since it is difficult to determine the situs of most other significant taxables, it has generally been considered essential that new taxes be state administered. In spite of this administrative necessity, the vast costs of government remain local costs. While the state may give up the property tax entirely for its own purposes, this represents, in most if not in all states, too little relief of the property tax. It becomes essential, therefore, for the state to assume a portion of the burden of local government. This can be done either by transferring the control of certain local government activities to the state or by providing funds collected by the state for the support of local government.

Developments have come along both of these lines. There is considerable pressure for the transfer of courts, corrective institutions and certain police activities to the state. There has been a considerable extension, particularly in the last decade, of state support for both schools and highways. Schools in such cases have usually been left in the control of their local communities. Techniques developed for carrying out the equalization principle provide an excellent channel by means of which the state may distribute funds to the localities. While there is a given minimum support which the state must provide to equalize the burden of a foundation program, equalization may be obtained by using any larger sum up to the total cost of the foundation program. In every state this is a sizable amount.

To the degree that the state supports this foundation program with funds from taxes other than the property tax, the situation demanded by the efficiency principle is approached. Obviously if the property tax is overburdened, the educational financing situation is bad in both rural and urban areas, in both poor and wealthy communities. While the property taxpayer in the wealthy community may not be carrying as heavy a burden as the property taxpayer in the poor community, he will be carrying more than his fair share as compared with other taxpayers whose ability to pay is not adequately measured by the property they own. A system of school support which provides that a large share of the cost of the foundation program be carried by the state will operate as real relief to the property taxpayer in the city as well as in the rural district, in the wealthy community as well as in the poor one.

An equalization program then acts as an agency for the equalization of educational opportunity and serves as a channel for the flow of taxes collected by the state into the localities for use in property tax relief. It becomes a device to improve the stability of education in all communities alike.

City Versus *Country*

The popular fallacy exists that all rural communities are poor and all urban communities are rich. Evidence shows that is is not the case. It is true that the poorest communities in any state are likely to be rural communities. Under the stress of increased educational costs it is obvious that the districts first to break down are the extremely poor rural districts. When these are cared for, the situation in the remaining rural districts is not unlike that in the villages and cities. In any state which I have examined in detail I have found cities and villages considerably poorer than average, and rural areas considerably wealthier than average.

The old notion of city *versus* country is a statistical fallacy arising from the fact that among the small districts are found the extremely wealthy and the extremely poor. The point of attack in any state would seem to be to learn what burden can reasonably be transferred from the property tax, to collect that amount of tax from other sources by means of state administered taxes and to use the yield of such state administered taxes to support a foundation program either entirely or in part.

Details by which these issues may be balanced in a program and various methods of attacking the problems involved are set forth in the recent report on State Support for Public Education of the National Survey of School Finance in a chapter entitled "Line of Progress."

With the development of such a program there will be an insistence upon the part of many taxpayers that all new funds granted be used for property tax relief. This situation was avoided in New York State because the property tax situation was not so acute at the time that state law was devised. But a careful check made for the legislative tax commission shows that even in the period of prosperity half of the increased aid that came to the districts of the state was actually used for tax relief. I have personally taken the position that the judgment as to whether the funds should be used for tax relief or for educational purposes be left to the individual communities. All types of limitations have a tendency in the long run toward educational inefficiency inasmuch as they shackle local initiative.

Property Taxpayer Demands Relief

My recent work in Ohio reveals insistent demands that any funds provided by the state in accordance with the program developed by the Ohio Survey Commission be used for tax relief. A companion bill now in the Ohio legislature provides that all funds received from the state be counted as if they had been received by taxes within the fifteen mill limitation. This would mean that unless the schools still had some leeway within the fifteen mill limitation, they would have to vote additional levies outside of that fifteen mill limitation. In other words, the leeway for the schools in the state, with the exception of those that fall below the foundation program set up, would be exactly what it is at the present time.

Actually, however, I believe that while this would not increase the leeway of the boards of education, the situation would be considerably improved. If the $28,000,000 proposal should be adopted in Ohio it would mean a $28,000,000 reduction in the property taxes now being raised for school purposes. This should in the long run result in sufficient relief to the property taxpayer that the demands for reductions in expenditures at any cost, many of which have become positively vicious, and many of which are doubtless a product of the fact that Ohio used the property tax to such a large degree for the support of government, will be less insistent. As times get better the community should, in like proportion, become more responsive to demands for the adaptation of its educational system to new conditions.

Obviously we can no longer consider the financing of the public schools apart from the whole taxation program. It is equally obvious that the burden of support by the state for public education must in increasing degree affect every community in the state.

In addition to the analysis of the various present state support systems given in the main body of the volume of the National Survey of School Finance entitled "State Support for Public Education," five supplements show interesting facts with respect to the present status of education. These data show, for example, that the percentage of total state revenue from taxes other than the general property tax increased from 39.8 per cent in 1910 to 64.0 per cent in 1930. More than half of this increase came between 1925 and 1930. All but four states showed an increase in this item over the twenty-year period.

Also during the period from 1910 to 1930 thirty-seven states showed a decrease in the ratio which state revenues for education bear to total state revenue, and thirty-nine states showed a decrease in the ratio which state expenditures for education bear to total state expenditures. In thirty-eight states there was a decrease in the ratio which state apportionments to school districts bear to state expenditures for education. States in which the percentage of state revenue going to education increased are Arizona, Florida, Iowa, Massachusetts, Montana, New Hampshire, New York, Pennsylvania, South Carolina and Tennessee.

Backwash Areas Suffer Most

In the United States as a whole, the percentage of state revenue which went to education dropped from 38.4 per cent in 1910 to 30.8 per cent in 1930. The percentage of the total state expenditures which went to education dropped from 37.6 per cent to 28.3 per cent. The percentage of state expenditures for education which was apportioned to school districts dropped from 66.7 per cent to 56.9 per cent. States in which the percentage of state expenditure for education apportioned to school districts increased are Alabama, Arizona, Colorado, Florida, Missouri, Montana, North Carolina, New York and Wyoming.

Another fact developed is that the percentage of the total cost of education which comes from the state decreased gradually from 1890 to 1920. It flattened out from 1920 to 1925, and showed a distinct upward trend from 1925 to 1930.

An appraisal of present finance systems is found in the main body of the report. Chapter 3 analyzes present minimum programs in operation in the various states, and indicates, for those states which submitted adequate data, the level of the educa-

tional program which would be justified as an eventual basis as a state minimum program. It shows the discrepancy between the operating minimum programs and the defensible minimum programs, and indicates the need, even before the depression, of expansions in educational programs in limited areas in nearly every state.

When we realize that these backwash areas in American education are the ones which are suffering most in the present depression, we have a picture of the lack of validity and stability of the traditional system of financing schools which in the best times gives millions of children only the most meager opportunities and in times of depression threatens the removal of these opportunities.

Even in these times consideration should be given to the elimination of those backwashes not only in school finance but in educational opportunities. Anyone who will study the maps in this report, showing conditions at their best, and will consider them in the light of what is happening today will, if he has any regard for the place of education in American democracy, join in the demand that this aspect of our educational establishment be put in order.

This is a task for citizens and legislatures and not for school people, except as the latter may provide leadership. Fine and desirable as are the best conditions in any state, educational leadership can no longer remain blind to the serious backwash conditions which the present system of school financing permits, to the lack of stability of the school system as a whole in bad times, or to its responsiveness to new needs in good times which the present system of financing imposes.

Michigan's Educational Personnel Planning Program

By EUGENE B. ELLIOTT
Research Assistant, School of Education, University of Michigan

The *laissez faire* methods used to regulate teacher production in Michigan are responsible for a great proportion of the present surplus of teachers, according to the findings of a recent survey of teacher supply and demand.[1] While the economic depression is a factor in the overproduction of teachers, the facts show that a teacher surplus was in existence as early as the school year of 1925-26.

Previous to the present study, the only basis upon which Michigan educators could plan was a survey of the Michigan state teachers' colleges in 1922. This early survey of the major teacher training institutions in Michigan reveals a shortage of professionally trained teachers.[2] The facts show that the major teacher training institutions graduated 2,273 teachers in 1916-17. As a result of the war, teacher production in these institutions decreased to 1,730 in 1920-21.

To relieve the teacher shortage and provide teachers for the increasing enrollment, many poorly trained and retired teachers were recalled to the profession. The Michigan teacher training institutions, working on the findings of the 1922 survey, sought to provide trained teachers by making the teacher training courses attractive and by urging young people to attend.

A Planning Commission Is Recommended

To cope with the continuing problem of teacher training and certification as related to the supply and demand of teachers, a state planning committee is recommended to meet annually or oftener, to consider the more general policies of the teaching field. This extralegal planning committee would make recommendations for the administrative guidance of the teacher training institutions.

Efficient and intelligent planning is dependent on facts. These facts should include every phase of the teacher training problem. The facts should be complete, should be collected annually and should be carefully interpreted before presentation to the planning committee. On the basis of interpreted facts the planning committee would plan, appraise past procedure, develop revised plans and make new plans. The fact finding and fact interpretation activity would be a division of the state department of public instruction.

The production of teachers would be regulated by the standards required for teacher certification. That regulation might be accomplished most effectively, the power of certification would be centralized in the state board of education. While the elevation of standards for certification is in conflict with the individual's right to strive for any prize he might desire, the interests of society are best served when the school field demand is supplied by teachers trained to the highest level of their capabilities and aptitudes, commensurate with the cultural level attained by the society in which they live. The academic and professional courses necessary for complete teacher training make it imperative that the training period be made as long as possible. Prospective candidates for teaching positions should satisfactorily pass a series of examinations to test their emotional, social, mental, physical and moral development.

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[1] Elliott, E. B., The Supply of and the Demand for Teachers in Michigan, Michigan Education Association, Lansing, March, 1933.
[2] Moehlman, A. B., A Survey of the Michigan State Normal Colleges, Michigan State Board of Education, Lansing, 1922.

TRADE SCHOOL LIBRARY

Don't Starve the School Library

The modern curricular program cannot operate effectively without the aid of reference material and collateral reading and the library appropriation should be increased rather than curtailed

By RUTH PEIRCE, Library School, University of Michigan

SLASHING of public expenditures to match reduced income is inevitable and imperative. Slight reductions in some instances and drastic reductions in others must be made in preparing school budgets for the coming year. There is, however, one school department that should receive more money, not less, in these trying days. That department is the library. Serious consideration should be given at this time to the functions of the school library whose usefulness is not always obvious to those who make the appropriations.

Let us go back in thought to 1433, before printing presses were invented, and get a glimpse of the schools of that time. We find the same type of school that the world had known for more than 2,000 years. The teacher dictated lectures to pupils who took notes on papyrus, tablet, parchment or paper. There were few texts and these had been laboriously copied by hand.

During the past five hundred years since Gutenberg began printing from movable type, methods of instruction have been changing with ever increasing momentum. Printed books, unchained books, books cheap enough for the common people to own, books in quantities in libraries, textbooks, reference books, illustrated books for pleasure and for information have appeared in due course.

To realize how much of this development has taken place in the twentieth century we need only recall the schools and books of our grandfathers, or even of our fathers, and compare them with the schools and books of 1933.

The days of one textbook for each subject are gone forever, as are the days of restricted communication with one's neighbor and with the world.

The modern child listens in his own home to presidential campaigns, inaugural addresses and personal messages from the country's chief executive. He has heard the voices of Mussolini, the Pope and Gandhi. He tunes in programs origi-

A group study project in the library of Marcy Elementary School, Detroit.

nating in Paris, Berlin, London and Rio de Janeiro. He has a world interest and no one text can satisfy him. The modern student who has watched aviators return from circumnavigating the globe; who has listened to news from remote countries or followed actual events in motion pictures cannot be satisfied with the local newspaper.

The teacher must cope with conditions as they are today. She must teach the modern child to live in a modern world whose vocabulary was largely unheard of and whose contacts with other nations were undreamed of a generation ago. To do this the teacher must have books and periodicals, many and varied. Library books, therefore, are absolutely essential equipment in the modern school.

Our immediate ancestors knew the teacher with one book in hand. A little later, the teacher kept several books on her own desk. Then came the browsing table or bookcase where supplementary books were kept for the use of the teacher's own pupils. Complications developed at this stage. If Miss A's pupils enjoyed certain books, Miss B's pupils wanted them in her room, too, and interest spread throughout the building. Duplication for each room was expensive. The busy teacher found it almost impossible to keep track of books used by all pupils in the room.

In self-defense and for mutual help teachers conceived the plan of putting all reference books in one place—an old storeroom or closet—and taking turns keeping records of the pupils who used them. This plan had some advantages but additional complications arose. It interfered with the teacher's duties and the improvised library was inadequate for the demands made upon it.

And so with changing conditions the school library has evolved from one book in the teacher's hand to the present 1933 library, scientifically planned as to location, arrangement, equipment and adjoining storage, work and conference rooms. The librarian has also evolved from the teacher in her own room to the trained teacher-librarian.

So engrossed has the librarian been with baffling problems and the many demands made upon the library that she has had no time to make known to school administrators or the general public the multiplicity of ramifications into which the fundamental services of the school library seem unavoidably to lead. The school library has developed so gradually and has performed its work so unobtrusively that justifiable publicity has been neglected. This is why many board members know so little concerning the potential and actual value of the library.

Story hour before the fireplace in the Roosevelt Elementary School, Detroit.

The hour has struck, however, when facts must be made clear to school boards. Because of lack of familiarity with the actual value of the library within school walls, some boards are inclined to curtail its usefulness at the very time when its expansion is vitally important. It is possible to point out here only a few of the library's functions.

First, there is the help which the library gives to the teacher, overburdened with crowded rooms due to retrenchments in teaching staffs and augmented by the return to school of hundreds of young people who normally would be employed or attending specialized schools or universities.

The teacher must follow courses of study requiring the use of varied sources, besides the text, in pupil preparation of lessons. Without a library containing a quantity of this material ample for the number of pupils enrolled, the teacher's work is badly hampered. One of the chief functions of the school library, then, is to make available for use at the time needed whatever reference material is required for the pupils' preparation of lessons—circulating books, overnight reserve books, reference books, pictures and periodicals. In addition, the skilled librarian in charge supervises the use of these materials.

Benefits to the pupil include this help and much more. Preparation of lessons according to a prescribed course is only a small part of the educative process of the modern youth. He awakens in the morning to the sound of a radio or the zooming of an airplane, eats his breakfast while reading the morning paper, passes movie hall entrances and drug store displays of periodicals, visits shops, stores, parks, country fields and recreation centers, dodges traffic at every corner. All this time he has been encountering many educative and molding influences besides those he meets during school hours.

And to this modern youth, boy or girl, young man or young woman, brilliant or ordinary, rich or poor, the school library is one of the most satisfying places he finds within school walls.

School board members, school administrators and taxpaying fathers and mothers should ponder the reason. What is the drawing power of the school library? What is it that girls and boys devour from books as soon as the required supplementary reading for class assignments is finished?

The most popular magazines with adolescent groups are those published by the highest authorities, among them the *National Geographic Magazine*, the *Scientific American* and *Nature Magazine*. World events as pictured in the *Mid-Week Pic-*

The library is a popular place at Robinson Junior High School, Toledo, Ohio.

torial and the *London Illustrated News* captivate children of all ages and of both sexes, and the bound volumes for months past are constantly perused.

Biography, travel, science, sports, inventions, aeronautics, automechanics, drama, animal stories, adventures, historical novels, stories of boys and girls the world over—all of this children snatch greedily when it is set before them. It should be remembered that this omnivorous reading stage comes but once in a lifetime. Some things in life can be done later. Not so the reading that must be done between the ages of ten and sixteen if the habit of reading for recreation is ever to be acquired and the child's life enriched with the associations which familiarity with the proper books can give.

To fit youth for leisure as well as for employment is the school's most pressing and imperative obligation today. Most helpful in fulfilling this obligation is the library, one of the integrating centers of the modern school. From it radiates a cultural influence that reaches to the best as well as to the poorest homes in the community. Few homes would or could supply for their own children more than a few of the library's books and magazines. A large percentage of pupils come from homes where there is nothing to read but cheap and worthless publications.

The law compels the child to attend school during the years when he has a normal curiosity about everything from the starfish in the depths of the ocean to the remotest star in the heavens. Omnivorous reading is a normal activity during this time if the child has access to suitable reading material. The school library is the one place where he is free to satisfy this natural curiosity not only about his own home and community but about every corner of the globe.

The school library is not only the logical place for the rapidly developing child between ten and sixteen to contact the best in books and current periodicals; it is the place where the taxpayer's dollar brings the biggest dividends for his own and for his neighbor's child. Let each one of a thousand taxpayers buy a $2 book. Each home then has one book. But let these same taxpayers appropriate to the school library fund the sum of $2,000. Each child from every home then has access to a thousand books.

Books must be constantly replaced. The more popular the library, the faster books are worn out. Sufficient allowance for adequate book replacement must not be overlooked even in present budgets.

A Uniform Nomenclature Is Needed for Special Classes

Whatever objections, real or imagined, may exist to applying distinctive names to special classes, the disadvantages of the lack of specific titles are obvious. Standardization would enable educators to speak a common language

By J. E. W. WALLIN, Director, Division of Special Education and Mental Hygiene, Delaware State Department of Public Instruction

ONE of the lesser evils that for years has vexed the student of special education is the lack of uniformity in the names applied in different school systems to different kinds of special classes. In no phase of special class work does greater confusion reign than in the special class terminology. Each school system seems to vie with every other in inventing nondescript or fanciful titles for special classes. Many of the terms used are wholly meaningless except to the officials of the individual school system. Moreover, few school systems follow consistently any definite principle of terminology for special classes. Some titles used reveal the purposes of the classes or the kinds of children who attend them, while other titles conceal the facts.

The facts became strikingly apparent from the replies received to a questionnaire sent out in connection with the White House Conference Inquiry on Nomenclature for Special Classes. I served as a member of the committee on organization, administration and supervision of special classes of the White House Conference. Questionnaires were sent to the superintendents of schools in 135 cities with a population of 50,000 or more.

A detailed tabulation based on the replies received from eighty-two school systems was made available to each member of all the subcommittees of the committee on special education (Section III F). Owing to the length of the tables, the data could not be included in the published report of the committee,[1] and only a brief summary of the replies is included here.[2]

This summary shows: (1) the approximate number of different names now applied to the same kind of special class in different public school systems; (2) the number of names recommended by the respondents for each kind of special class; (3) the names now in most frequent use, and (4) the names most frequently recommended.

Doubtless valid reasons sometimes exist for the adoption of esoteric or meaningless terms, or terms having a purely local significance. Frequently, however, mere caprice or the urge of noncomformity seems to account for local idiosyncracies of nomenclature. Some respondents distinctly disapprove of the application of any distinctive terms to special classes of any kind, contending that a special class should be referred to merely by the name of the school, by the teacher's name, by the number of the room or by some arbitrary letter, symbol or number. But it was noteworthy that none of the school systems with which these respondents are connected follow their suggestions consistently. All use a differential terminology for at least some kinds of special classes.

A Standard Terminology Is Needed

Whatever objections, real or imagined, may exist to applying distinctive names to special classes, the disadvantages of the lack of specific titles are obvious. The local administrative authorities cannot avoid confusion and mistakes in budget making and in the assignment and transfer of children to special classes without the use of some sort of distinctive and easily remembered identifying symbols or names for different kinds of special classes. The use of letters, numbers or any other arbitrary device is not satisfactory, because the significance of artificial symbols is not easily remembered even by the school staff, while some school reports couched in such terms without explanatory statements are likely to be unintelligible to the patrons of the school district as well as to educators throughout the country.

A uniform national terminology is needed so that we may be able to speak a common language.

[1] Special Education: The Handicapped and the Gifted. Report of the committee on special classes of the White House Conference on Child Health and Protection, The Century Company, 1931.

[2] The unabridged tabulation will be loaned to anyone who will pay the cost of transportation.

BRIEF SUMMARY OF REPLIES RECEIVED FROM EIGHTY-TWO SCHOOL SYSTEMS ON NOMENCLATURE FOR SPECIAL CLASSES

Type of Class	*Approx. No. of Names Now Applied to Such Class*	*No. of Names Recommended for Such Class*	*Terms Now in Most Frequent Use*	*Terms Most Frequently Recommended*
For the mentally deficient	20—Exclusive of minor variations	16—Exclusive of minor variations	Special, 28; Opportunity, 17; Ungraded, 6	Opportunity (with variants), 11; Special (with variants), 9
For the borderline and backward	21—Exclusive of minor variations	16	Opportunity, 17; Special, 14; Ungraded, 14	Opportunity, 15; Ungraded, 6
For the crippled	7—Exclusive of variations	4—Exclusive of variations	Classes or school for crippled children (with variations), 32; Orthopedic, 7	Schools or classes for crippled children, 14; Orthopedic, 7
For the deaf	9—Exclusive of minor variations	6	Deaf classes or classes for the deaf, 25; Schools for the deaf, 11	Classes for the deaf and equivalents, 12; Schools for the deaf, 7
For the hard of hearing receiving training in special classes	9—Exclusive of variations	9	Classes for hard of hearing or the equivalent, 16; Lip reading classes, 8	Lip reading classes, 7; Classes for hard of hearing, 7; Hypacoustic, or its equivalent, 4
Children receiving occasional lip reading in groups	5	5	Lip reading classes, 13; Special classes (with variations), 10	Lip reading classes, 8
For the blind	7—Exclusive of variations	5	Classes or schools for the blind and equivalents, 14; Braille classes, 4; Sight-saving or conservation, 3	Classes or schools for the blind and equivalents, 9; Braille classes, 3
For visual defectives (not blind) using large type	5—Exclusive of minor variations	6	Sight-saving classes, 32; Sight conservation classes and equivalents, 17	Sight-saving, 22; Sight conservation and equivalents, 10
For cardiacs	4	7	Cardiac classes and equivalents, 8	Cardiac classes and equivalents, 12
For the underweight or malnourished without active tuberculosis	13	7	Open-air classes, applied to both the schools and the single rooms, 25; Open-air schools, applied to the separate schools, 10; Open-window classes, 12	Open-air class or school, 14; Open-window classes or schools, 11
For the tuberculous, malnourished or children with pulmonary tuberculosis	12	6	Classes for the tuberculous, 5; Open-air schools, 4; Preventoriums, 3	Classes for the tuberculous, 7
For behavior children	17	8	Ungraded classes, 5; Parental school or home, 7; Special class or school, 5; Disciplinary class or school, 4	Disciplinary classes or schools, 7; Adjustment classes, 5
For children committed by the juvenile court to a residential institution	15	9	Parental schools, 5; Detention classes, schools or homes, 8	
For bright children	14	14	Accelerated classes or groups, 6 Sections, groups or divisions, 4; Opportunity classes, 4	
For home instruction for shut-ins	17	11	Home classes or groups, 8; Home teaching, 5; Home teachers, 5; Home confined children, 5	
Workers serving as visiting or adjustment teachers for maladjusted children	7	10	Visiting teachers, 25; Adjustment teachers, 2	Visiting teachers, 9

Moreover, a standard terminology will doubtless contribute toward the more scientific differentiation of the different groups of handicapped children. It must be conceded that even now, after decades of experimenting, one of the needs in the field of special education is a more adequate or scientific differentiation of the different types and grades of handicapped children. A differential terminology will focus attention on the desirability of securing more adequate differential diagnoses of all kinds of children who deviate from the normal. Without such diagnoses many children will be assigned, to their detriment, to the wrong classes. The need for accurate differentiation is as important for cardiacs, the tuberculous, the tuberculous-contact, the malnourished, the underweight and the anemic groups, the visually and the auditorially handicapped, the crippled and behavior cases, than it is for the mentally deficient, the borderline and the backward children. If the adoption of a standard terminology did nothing more than promote the establishment of separate classes for mentally deficient children, on the one hand, and backward children, on the other hand, it would be of inestimable value to backward children who often are forced to spend their school days in classes for the mentally deficient. It would be of almost equal value to the mentally deficient who frequently are placed in classes for backward children where an attempt is made to force them to master a curriculum which may only fit the needs of backward children. When mentally deficient and backward children are assigned to the same class, the instruction ordinarily provided is unsuited to both grades.

Terms Must Not Be Offensive

The objections to the standardizing of the terminology for special classes largely disappears if descriptive and functional terms are adopted which are appropriate, attractive and free from offensive implications.

Because of the limitations of time the general committee on special classes was not able to consider the question of nomenclature, although it was included in the agenda. The recommendations I made to the subcommittee on organization and administration of special classes should prove of interest to superintendents, special education workers and other committees which may be appointed later by education associations, and are therefore briefly mentioned here.

In suggesting the adoption throughout the country of the standard nomenclature, herewith submitted, I have been guided by the following considerations:

1. Preference has been given to names which emphasize the function or purpose of the class or the basic remedial technique employed rather than the character of the handicaps of the pupils.

2. Unobjectionable terms now in almost universal use recommended by the respondents with considerable unanimity, have been retained.

3. Consideration has been given to the suggestions made by the subcommittees of the committee on special classes of the White House Conference which replied to a request for recommendations concerning the terms they would like to have applied to the type of class with which they were concerned. Several subcommittees did not make any suggestions.

4. The term "school" should be restricted to a class or a number of classes organized as a separate unit under a separate administrative head, while the term "class" should be applied to a class that is administered by the building principal.

The Recommended Nomenclature

The following nomenclature is recommended for nationwide adoption for different kinds of special classes:

For the blind—Braille Class or School. The reasons advanced in favor of this term are sufficient, in my judgment, to override the minority vote which it received.

For children with weak vision—Sight-Saving Class. Strictly speaking, the sight-saving class is for children whose visual defect is likely to grow worse and who require the most favorable external conditions to prevent deterioration of vision. Such classes are correctly called sight-saving classes.

For children with low vision—Sight Conservation Class. The sight conservation class is for pupils with the static type of low vision, whose vision is in no danger of deterioration. Such children are assigned to the sight conservation class not to save their vision but to receive, with the assistance of special techniques and equipment, the instruction they cannot obtain in the ordinary classroom, because of their limited sight. The second type of visual defective is more numerous in most localities. This differentiation is recommended whenever the number of cases is sufficiently large to make it administratively feasible.

For the deaf—School or Class for the Deaf. Although not in conformity with the basic principle, this term meets with the unanimous approval of the respondents.

For the very hard of hearing receiving training in special classes—Conservation of Hearing Class. This type of class is intended for the development of residual hearing and speech in children with highly defective hearing. Speech and lip reading instruction should be furthered by the use

of a room amplifier provided with individual head sets. The pupils should enjoy the privilege of reciting with normal children in the regular grades. The conservation of hearing teacher should assist the pupils in the preparation of the regular grade assignments. Few classes of this type have, thus far, been established.

For children receiving instruction in lip and speech reading in groups—Lip Reading Class; and for cardiacs (cardiopathic children)—Cardiac Class. These designations are now in almost universal use, and conform to the majority of recommendations by the respondents.

Better Terms Will Come Later

For the underweight or malnourished without active tuberculosis—Open-Window Class or Open-Air Class or School. These terms are in almost universal use in the United States, although they are not appropriate. The purpose of these classes is to afford not only fresh air, but also proper nutrition and rest. Nevertheless, a change of terminology does not seem advisable at this stage. In time, better terms will doubtless be suggested. The tendency is increasing to assign malnourished pupils who show no evidence of latent tuberculosis to "nutrition classes" instead of to open-air classes. The designation "open-air class" (or school) should be applied to specially constructed rooms or buildings which are adequately equipped with the approved appointments and appliances for improving the health of undernourished children, while the term "open-window class" should be restricted to the use of a regular classroom having open windows and few or no special appliances.

For the malnourished with contagious tuberculosis—Hospital, Sanatorium School or Preventorium School or Class. These terms are preferable to the term that was most frequently recommended, which is freighted with unpleasant associations and often arouses unfortunate attitudes toward the victims of the malady. The pupils who come in this group usually remain day and night in these institutions.

For disciplinary or behavior cases—Adjustment Class. This designation is free from the criticisms voiced by many respondents of the compromising terms often applied to these classes, and is in harmony with the recommendation of the committee on behavior problems.

For children committed by the juvenile court, or any other authority, to a parental school or detention home—Residential Adjustment School. The same comment as above applies to this type of school.

For bright or gifted children—Enrichment Class. This term is selected in view of the fact that the committee on the gifted child prefers the "enrichment" to the "acceleration" type of class.

For speech defectives—Speech Improvement Class. The questionnaire did not include this type of work, but because of its brevity this name is preferable to the longer designation "speech improvement and correction class."

For crippled children—Orthopedic Class or School. This designation is to be preferred to the more frequently employed name, since it does not call attention to the nature of the defect every time reference is made to the class. The word "cripples" or "crippled" sometimes arouses unfortunate reactions in the minds of many persons whose attitudes are determined by the crippled mendicants who frequently accost them on the streets and appeal to them for help.

For mentally deficient children—Special Class or School. This term, which is recommended by the committee on the mentally retarded, is retained because of the lack of a better name. It is recommended that teachers of the mentally deficient agree upon a more appropriate designation for this group.

For borderline and backward children—Special Class or School.

For workers serving as visiting counselors for maladjusted children—Visiting Teachers. This term is selected because of its widespread popularity rather than because of its appositeness. Eventually some more appropriate term will gain acceptance, such as visiting counselors, or adjustment or contact workers.

For shut-ins receiving home instruction—Home Instruction (home teachers).

Boards of Education Endorsed by Parent-Teacher Group

At the annual convention of the Parent-Teachers Association of Michigan the following resolution respecting boards of education was adopted:

"Be it resolved further that we declare ourselves emphatically against the current tendency to destroy the responsibility and authority of our city boards of education. We are committed to a policy of keeping the schools out of politics. As a whole no group of city officials has carried on with greater honesty and efficiency than boards of education. Michigan communities should be ever on the alert to array themselves against any effort to strip these school boards of their power. They are elected by the people and should be directly responsible and answerable to the people."

"Safety First" Should Be Motto in Reducing Building Costs

Dangerous practices to be guarded against in economizing on school building costs are enumerated and practical ways of meeting this problem are described

By ANDREW P. HILL, JR., Chief, Division of Schoolhouse Planning, California State Department of Education, Sacramento

IT IS interesting to scan current literature to learn what proposals are being made regarding economy measures in the erection, use and maintenance of public school plants.

The titles of articles that have been published on this subject during the past three years include: "Ways and Means of Increasing School Facilities in Time of Business Depression," "Cutting School Building Construction Costs," "Economy in Planning and Construction of School Buildings," "Buying School Buildings," "Unusual Features in the Plan and Design of a Modern School," "Where Every Inch of Space Does Double Duty," "Acquainting the Layman With School Building Costs," "A School Building Unit and How It Simplifies Construction." It is interesting to note that only one of these articles was written by an educator. The others were written by engineers and architects.

The articles contain helpful suggestions for building economies, but at the same time many of the proposals, in my opinion, do not promote the best interests of education. It is these misconceived proposals for effecting savings that I wish to review first in order that a final statement of possible economies may be made with clarity.

In some instances it has been proposed that economies be effected by reducing the area of the building. This is a legitimate aim if educational needs are not jeopardized, but when essential facilities are omitted from schools the results are ruinous to education. In some recently published plans for high school buildings the following facilities have been omitted: shop and domestic art rooms; a library; pupil assembly rooms; teachers' rest rooms; gymnasium storage rooms; teachers' offices; janitors' service rooms; costume scenery and property storage rooms. In some cases the administrative office space has been limited to one room, and in others no entrance has been provided to the auditorium-gymnasium, except over the bleacher seats.

The omission of these facilities denies the fundamental importance of manual and domestic arts and the importance of proper administration. The functions of attendance, guidance, testing, recording, health examination, supply storage and efficient janitorial service are assumed by the sponsors of these economy measures to be of no fundamental consequence. While every progressive high school principal recognizes the value of a library in helping to develop independent study habits among pupils, the plans that have been described calmly dispense with the library in favor of methods more closely allied to textbook memorization. The efficiency of the teaching staff is reduced by the complete absence of rest and study facilities for teachers. The order, organization and control of gymnasium classes are threatened by lack of storage space. Efficiency in janitorial service and a cultural standard of cleanliness are jeopardized by not including janitors' service rooms in the plans. The exit over the bleacher seats in the gymnasium-assembly endangers the lives of those using the room. The total lack of stage facilities makes it impossible to provide an adequate program of oral English.

Substitutes Are Often Costly

Another type of proposed savings calls for either combining or substituting various facilities. The proponents of this method would substitute, for example, the basket gymnasium locker for the larger ventilated locker, shallow teachers' cases for closets, wardrobes for cloak rooms and a draped curtain for the stage in place of the proscenium arch. The chief objection to substitutions of this type is that, as commonly provided, they sometimes cost more than the facilities they replace.

Other suggestions that have been made for re-

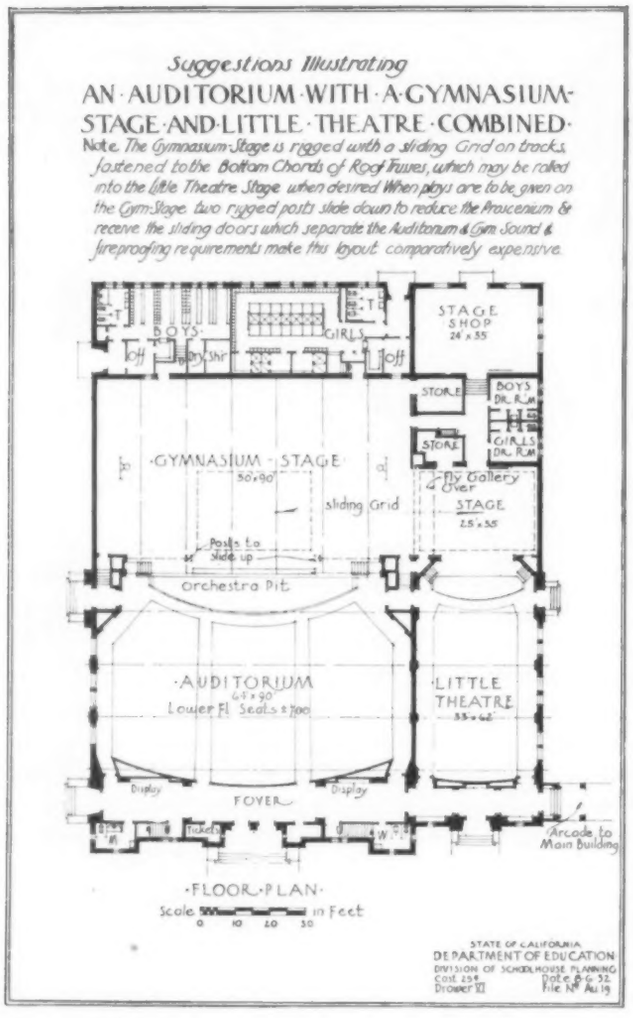

Suggestions Illustrating
AN AUDITORIUM WITH A GYMNASIUM-STAGE AND LITTLE THEATRE COMBINED
Note. The Gymnasium Stage is rigged with a sliding Grid on tracks, fastened to the Bottom Chords of Roof Trusses, which may be rolled into the Little Theatre Stage when desired. When plays are to be given on the Gym-Stage, two rigged posts slide down to reduce the Proscenium & receive the sliding doors which separate the Auditorium & Gym. Sound & fireproofing requirements make this layout comparatively expensive.
BOYS
GIRLS
STAGE SHOP 24' x 55'
STORE
BOYS DR. RM.
GIRLS DR. RM.
STORE
GYMNASIUM - STAGE 50'x90'
sliding Grid
Fly Gallery Over STAGE 25'x55'
Posts to slide up
Orchestra Pit
AUDITORIUM 64'x90' Lower Fl. Seats ± 700
LITTLE THEATRE 33'x62'
Display
FOYER
Display
Tickets
Arcade to Main Building
FLOOR PLAN
Scale in Feet
0 10 20 30
STATE OF CALIFORNIA
DEPARTMENT OF EDUCATION
DIVISION OF SCHOOLHOUSE PLANNING

Fig. 1. An auditorium, with a gymnasium-stage and little theater combined.

ducing school building costs have to do with the plan layout. In one of the so-called economical plans only one gymnasium floor is provided for a secondary school accommodating 1,300 pupils. In another plan the unit to be built is so situated that the indicated future extension will completely ruin the athletic field. In still another plan the only recognizable front entrance leads into an auditorium lobby that is not connected in any way with a circulation corridor. In this last plan, when the indicated future extension is added, the assembly hall will completely block all cross ventilation. In another supposedly economical plan four classrooms have been provided that cannot be reached except by going out of doors and around the building, or by going through other classrooms.

Some proponents of school economies have asserted that certain shapes of buildings are more economical than others. However, in my opinion, if the classroom spans are alike and the relation of classrooms to corridors is kept identical, no one shape of building is more economical than another.

A common method of saving is to combine various rooms, such as the gymnasium-auditorium, the stage-music room, the gymnasium-stage and the library-study hall. Small schools must combine rooms in order not to waste too much space. In most large schools, combinations of rooms are forced upon the educator more because of the type of program he has adopted than because of inability of his district to afford the expense of specialized rooms. A skillfully constructed program will, therefore, provide a maximum of educational opportunity at a minimum of housing cost.

Inappropriate room combinations are costly. It is easy to comprehend the difficulty of conducting an oral English class on the stage in a combination auditorium-gymnasium when at the same time a gymnasium class is under way. The noises can be reduced by the use of sound deadened accordion doors, a fire curtain and draped curtains in front of the stage, but the cost of this apparatus would almost equal the cost of a bona fide stage. The oral English program is certain to suffer under such an arrangement.

The auditorium can have a gymnasium-stage under only one condition, and that is when the little theater stage is fully rigged and is next to the gymnasium stage so that its grid can be rolled on to the latter. This arrangement, however, creates a dangerous fire hazard, requires fireproof, sound deadened doors between the two stages and necessitates the erection of two fully rigged stages. The final solution provides a gymnasium-stage with the auditorium seats available for spectators, the little theater stage available at all times for oral English classes and the gymnasium-stage convertible for music and dramatic projects. It is doubtful, however, if a combination of this type will save money. An advantage of this arrangement is that the auditorium seating space may be used for spectators at basketball games. Fig. 1 illustrates this arrangement.

Another Method of Cutting Costs

Rooms can be successfully combined by means of rolling, sliding or accordion doors only when the normal activity of one room does not interfere with the conduct of classes in the other room. The presence of chemicals on the laboratory tables usually makes the chemistry laboratory unsuitable for use by other classes. Fig. 2, however, illustrates how science rooms can be arranged so that non-science classes can occupy the tablet arm chairs during vacant science periods. The library-study hall is practical in small schools. Future growth plans, however, should provide for a library adjacent to the study hall.

A fifth method that has been advocated for the purpose of cutting down school building costs is

the unit construction plan. Unit construction is an attempt to systematize school building construction by adopting a certain construction unit and then repeating this unit throughout the building. It permits quantity runs at the factory and partial factory assemblage. Mechanics on the job repeat the same task so often that they are able to work faster than usual. The plan simplifies building layout and standardizes the location of facilities and services. Its proponents point out that it promotes flexibility because the partitions do not carry building loads. They believe it has saved as much as 10 per cent over other types of construction. The usual standard adopted for elementary schools is 10 feet wide by 22 feet deep by 12 feet high. Toilets, stairs, offices and the like are contained in single units, while classrooms are composed of two or more units.

Standard Rooms Don't Meet Modern Needs

As a form of organization, unit construction has merit. As an intermediary through which educational plans can be interpreted its effectiveness is doubtful, and its record is one of structural domination and repression of educational needs. Modern educational programs do not call for standard classrooms. Informality, rather than formality, is what is needed. The activity type of classroom, the work-study-play school and departmentalization have sounded the death knell of the old-fashioned, academic, formalized standard classroom.

Standard rooms built on the unit plan do not meet the requirements of the ordinary school. For example, a band room must be larger and must have more storage space than a mathematics room accommodating the same number of pupils. The band room must also have special acoustical treatment. A standard span of say 22 feet has no relation to the functional needs of shops, art rooms, cafeterias, libraries, study halls and science rooms. The placing of a window in the middle of each unit denies the need of unilateral light from a group or bank of windows. Another objection to the unit system of construction is that the difference in furnishings required results in waste space in some rooms while others are overcrowded. For example, the single unit of 10 feet is too narrow for major toilet rooms and results in congestion and disorder.

What substitute is there for these proposed building economies that evidently contain elements dangerous to the best interests of education?

One of the most efficient tools for economy is the school survey. A properly conducted survey will suggest a long time program based on sound educational theory. It will help to guard against over-

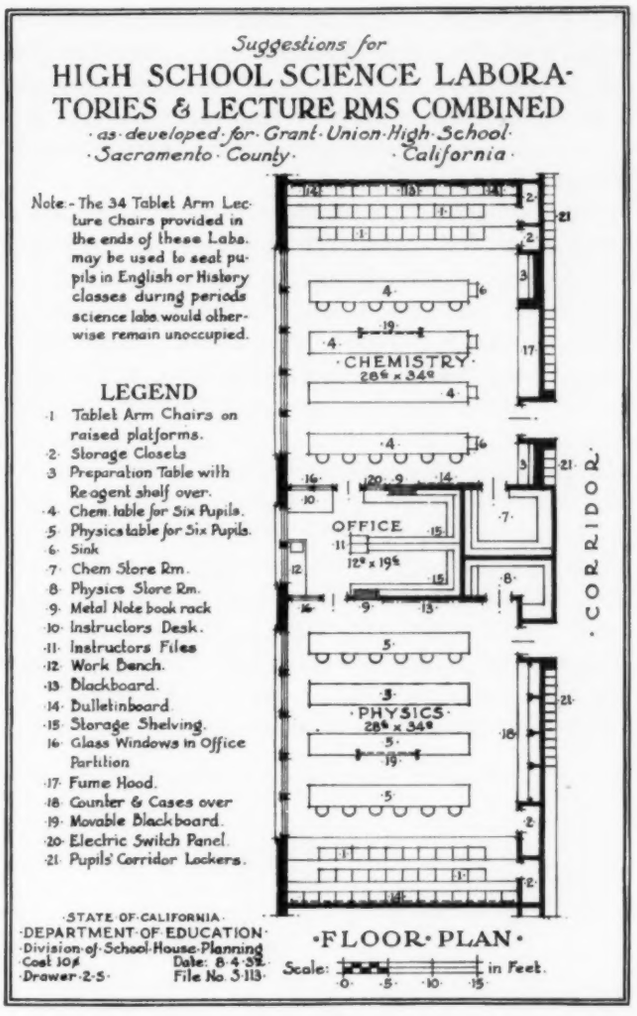

Suggestions for
HIGH SCHOOL SCIENCE LABORATORIES & LECTURE RMS COMBINED
as developed for Grant Union High School
Sacramento County California
Note - The 34 Tablet Arm Lecture Chairs provided in the ends of these Labs. may be used to seat pupils in English or History classes during periods science labs would otherwise remain unoccupied.
LEGEND
1 Tablet Arm Chairs on raised platforms.
2 Storage Closets
3 Preparation Table with Reagent shelf over.
4 Chem. table for Six Pupils.
5 Physics table for Six Pupils.
6 Sink
7 Chem Store Rm.
8 Physics Store Rm.
9 Metal Note book rack
10 Instructors Desk.
11 Instructors Files
12 Work Bench.
13 Blackboard.
14 Bulletinboard
15 Storage Shelving.
16 Glass Windows in Office Partition
17 Fume Hood.
18 Counter & Cases over
19 Movable Blackboard.
20 Electric Switch Panel.
21 Pupils' Corridor Lockers.
CHEMISTRY
28½ x 34½
OFFICE
12½ x 19½
PHYSICS
28½ x 34½
CORRIDOR
STATE OF CALIFORNIA
DEPARTMENT OF EDUCATION
Division of School House Planning
Cost 10¢
Drawer 2-S
Date: 8-4-32
File No. 5-113
FLOOR PLAN
Scale: in Feet.

Fig. 2. A layout for science rooms that increases their usefulness.

building and underbuilding. The survey will also emphasize the need for an adequate site, properly located, and it will tell whether the proposed site is a good buy. Poor or inadequate sites have been largely responsible for forcing on the educator undesirable construction.

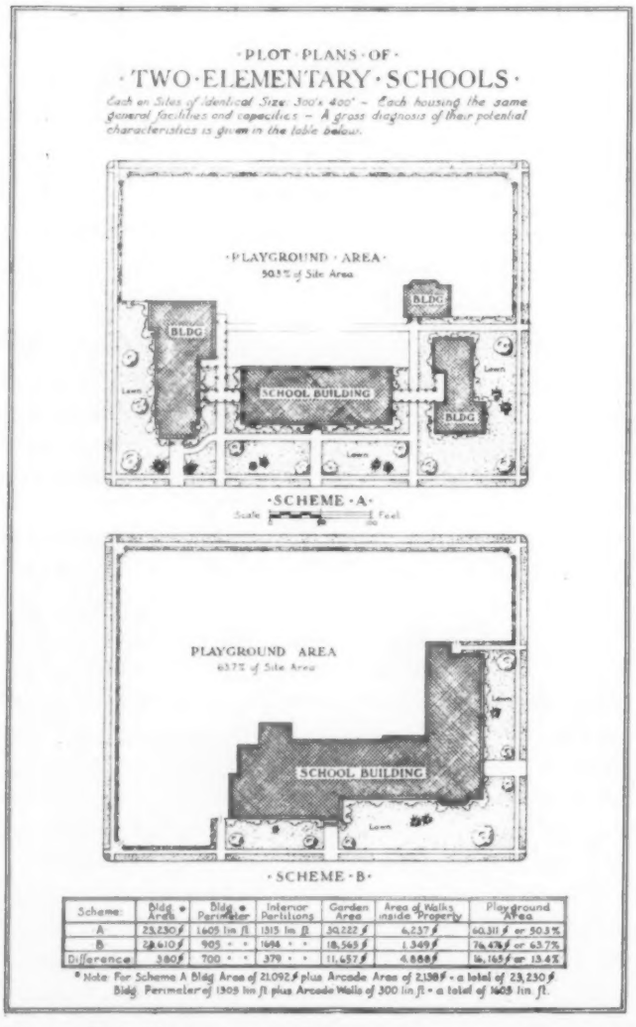
The object of the school survey is to protect the public's investment and it should reveal the answers to the following questions regarding it: Is the site adequate in area? Is it of the proper contour and shape? Will expensive retaining walls be required? Will the site allow of good building ornamentation? Is the soil adapted for footings? Are the necessary sanitary services available? Are the streets on which the site is located likely to be widened in the future? Can play areas be developed without undue expense?

A second method of saving has already been suggested, namely, the adoption of an economical school schedule. If departmentalization is desired, it will be found that for the upper grades platoon schedules or departmentalized schedules are fundamentally sound in an educational way and are

also economical. An eight or nine-period day will require less building capacity than a seven-period day in the elementary school. Programs using the hour supervised study period system will get the maximum use from a building if the class schedules are properly dovetailed.

Once a basically economical program has been worked out for a school, a statement of the number, name and capacity of the room spaces needed is merely a matter of tabulation. This information forms a basis for the educational statement which the architect will use in drawing the plans, and the care and detail with which that report is developed is the greatest single factor in controlling the financial and educational values a school district may hope to receive.

The educational statement should interpret the needs of the school to the architect. It should not be assumed, simply because the architect is a school specialist, that he knows what is needed. The statement should inform the architect exactly how the school organization will operate. He should be given the following facts in connection with each instructional space; the subjects to be accommodated, the amount and type of furniture to be used, the auxiliary equipment needed, the amount of storage space needed, the relationship of each room to the other rooms, the orientation desired, the amount of light needed, the type of acoustical treatment needed and the kind of floor desired.



Scheme:	Bldg. Area	Bldg. Perimeter	Interior Partitions	Garden Area	Area of Walks inside Property	Playground Area
A	23,230 ☐'	1605 lin ft	1515 lin ft	30,222 ☐'	6,237 ☐'	60,311 ☐' or 50.3%
B	22,610 ☐'	905 " "	1694 " "	18,565 ☐'	1,349 ☐'	76,476 ☐' or 63.7%
Difference	380 ☐'	700 " "	379 " "	11,657 ☐'	4,888 ☐'	16,165 ☐' or 13.4%

* Note: For Scheme A Bldg Area of 21,092 ☐' plus Arcade Area of 2,138 ☐' = a total of 23,230 ☐'
Bldg Perimeter of 1305 lin ft plus Arcade Walls of 300 lin ft = a total of 1605 lin ft.

Fig. 3. This illustrates the difference in cost of two schools with similar capacities.

Judging the Competence of an Architect

Standards for safety and circulation should be prepared for the architect. Besides asking for certain administrative rooms, the educational statement should describe the operation of the administrative organization and explain how such items as attendance, health examination, student activities and building supervision are handled. The need for mechanical services and signal systems should be described in the report. The report should also point out where the greatest wear occurs in the school equipment, and materials and equipment that have proved satisfactory in the past should be called to the architect's attention in the report.

The architect must be selected carefully, and this should not be done until the educational statement has been completed. The mere fact that a man is licensed is no proof of his ability. A competent architect will submit a complete set of plans and specifications. If the plans, specifications and legal papers are complete in every detail, reliable contractors will be attracted to bid on the job. If indefinite plans and specifications are prepared, honest contractors are forced to raise their bids in order to allow for contingencies and, as a result, inferior contractors secure the work. Check lists are available for evaluating architect's plans and specifications. The competence of an architect may be judged by applying these lists against work that he has done.

The architect should concern himself first with the layout of the plan. After the educational needs have been clarified by an actual plan the layout scheme may be modified to present pleasing masses and balance.

Compactness, double loaded corridors and the widest span consistent with good light are fundamental to economy. Scattered, separate buildings waste site area, demand abnormal lawn space and gardener help, increase steam, electric and water circulation lengths, increase heat loss from steam pipes and invite rust and corrosion of buried materials. Separate buildings require more building materials than one large structure, frequently interfere with correct orientation and always cause excessive heat losses in winter due to an increased ratio of perimeter to area.

The setback of a building is important since it

TRADE SCHOOL LIBRARY

regulates the size of the front garden, the amount of gardener labor necessary and the future irrigation costs. The plots of two elementary schools, each on sites of identical acreage and each housing the same general facilities and capacities are shown in Fig. 3.

The school designated as Scheme A in Fig. 3 cost more to build than the school identified as Scheme B, despite their similarity in capacity and facilities. The reason for this is that in Scheme A four buildings were erected while in Scheme B the school plant was confined to one building. The Scheme A school will also be the more expensive of the two from a maintenance and operation standpoint. The lawns are larger, the heat loss will be greater and the pupils will be constantly tracking dirt into the various buildings in changing classes.

The toilet rooms in elementary schools should be adjacent to the play areas and preferably on the same level with them. Playground traffic to and from the toilets causes heavy wear on interior floors, which can be avoided by proper planning.

The effect of span on perimeter and consequent cost is illustrated in Fig. 4. Fig. A in this drawing shows the plan for an elementary school building as submitted by the architect. There was a 24-foot span on one side of the corridor and a 15-foot span on the other side. The entire frontage of the site was used, which meant that the future assembly hall would have to be placed in an inconvenient place. The library, or book storage room, opened from the corridor only, and the supply room was arranged in a similar manner. This necessitated the principal's passing through the hall in order to enter either of these rooms. The principal was required to act in the capacity of school nurse in emergency cases, but despite this the clinic was completely divorced from the principal's quarters. The kitchen was too small for the school's needs.

What Type of Construction Is Best?

The original plan was redrawn as shown in Fig. B in the same drawing. The narrow span was widened in order to group the various rooms that were closely allied with the administration, the teachers' and the girls' rest rooms were combined and the kitchen was enlarged. The new plan reduced the perimeter 74 lineal feet and the area 6.9 per cent. The primary toilets were relocated adjacent to the primary playground. Careful attention to principles of fundamental layout improved this plan from an educational standpoint and lowered building costs. In addition, the new plan makes it possible to build future additions to the structure at a minimum cost.

An experienced architect can be of great assistance to a school board in its efforts to select a type of construction that will result in long time economies. School specialists differ in opinion as to whether Class B or Class C is the more economical type of construction. I favor a modified Class C type of construction for mild climates because it is relatively low in cost, is safe in case of fire and is reasonably adaptable to future changes. Many school board members fail to realize that cheap construction is expensive in the long run. A study of long time building values in one complete county in California and in one California city revealed the following average annual maintenance costs per square foot for different types of construction: Class B, five-eighths of a cent; Class E (both wood and stucco exterior), slightly over four cents. At current costs, the Class C type of construction was shown to be the least expensive investment after fourteen years of service.

Many cities using Class B construction have been able to reduce their fire risks to the point where they have adopted a program of self-insurance at a considerable saving.

It is not always possible, of course, to use the

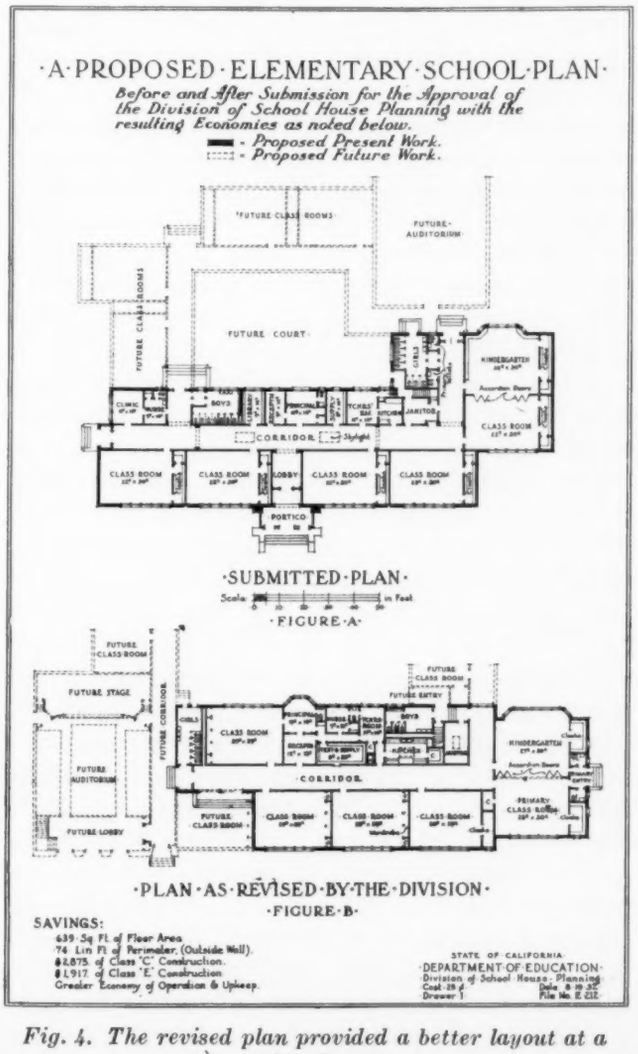


Fig. 4. The revised plan provided a better layout at a reduced cost.

most desirable type of construction. When cheaper buildings must be erected stress should be placed on the use of homogeneous materials, structural stability, pupil safety and careful selection of materials at points where hard wear is anticipated.

If it is necessary to use nonfireproof construction great care must be taken to protect the pupils. The boiler room should always be made fireproof and should be equipped with automatic fireproof doors and wire glass sash. The fan room should also be fireproof and should not be connected in any way with the boiler room, except for the steam coils. Every potential fire risk should be neutralized by the installation of automatic sprinkler equipment. Then, if the corridors, the exits, the fire alarms and the hand fire apparatus are of standard make and are properly placed there will be slight danger from fire.

The best of plans may prove unsatisfactory in the end unless costs are accurately computed in the beginning. Consequently, the architect who has accurate, segregated cost records available is in a position to render a valuable service to the school district.

The natural diversity of school building needs results in a difference in unit costs. Since each unit of a building is designed to suit its own particular needs in span, materials and finish, the costs of each of these units must be known in order to estimate contract prices. The shops in one-story wings (Class C construction) can often be erected for as little as $2.70 a square foot, the gymnasiums may cost as much as $4.50 a square foot and the science rooms approximately $5 a square foot. The classrooms in a one-story wing cost less than those in a two-story wing where heavier construction must be used. By carefully analyzing costs on this basis the architect can predict contract prices to within 1 per cent of the lowest reliable figure. An experienced architect can usually advise school boards in regard to the time of year when the lowest prices may be expected.

Good Planning Principles Must Be Preserved

Heating and ventilating equipment has been a costly item in the past. Now, however, automatic individual units are frequently used in place of a central plant and an intricate duct system. Small heating units may be installed in those sections of the country where cheap natural gas is available. Self-ventilating steam radiators are giving satisfaction in many school systems, and corridor ventilation has supplanted the duct system in some other schools. The modern gas burners and oil burners are clean and automatic and free the engineer-janitor for other duties.

Simplicity is the key to economy in developing a set of building plans. The small items must be carefully watched after the basic fundamentals have been provided for. It is easy to waste money in planning the details of the ordinary school. Designers are prone to standardize on more blackboards than are really needed, while picture molds, pinning strips and other such appendages are all too common in rooms where they are not needed from an educational standpoint. It is hard to convince many designers to leave the casings off of transoms and to build acoustical ceilings without camouflaging the materials.

In the last analysis, good planning principles must be preserved in any scheme for reducing building costs. Portions of buildings may be temporarily omitted to save immediate costs, but only when future extensions are definitely planned. Many fundamental economies can be effected when the specialized architect and the trained educator work together.

How Economies Have Reduced the Effectiveness of Schools

The U. S. Office of Education records show that most schools are doing their utmost to maintain service, despite the economic situation. They have decreased teachers' salaries, have cut expenditures for supplies, equipment and buildings, but service has been maintained whenever possible. Reports indicate, however, that actual effectiveness of schools in some cities is being reduced.

The school term will be shortened ten days or more by 170 cities this year; 92 of these cities will cut their school terms twenty days or more.

Last year 200 counties cut school terms ten days or more, and 130 counties shortened their school terms twenty days or more.

Americanization classes have been curtailed or eliminated in seventy-three cities.

Kindergartens have been curtailed or closed in eighty-five cities, and an equal number of cities have closed or partially eliminated schools and classes for handicapped children.

Music supervision has been cut in ninety-three cities, forty-two cities have cut general supervisory service and school medical service has been reduced in forty-eight cities.

School nurse service has been cut in sixty-eight cities, music instruction in fifty-two cities and art instruction in twenty-eight cities.

Home economics instruction has been cut in sixty-two cities, manual training instruction in sixty-four cities and physical education in eighty-one cities.

Four Questions Schools Can Answer by Graphic Methods

The guidance program employed at Wisconsin High School demonstrates the effectiveness of simple techniques in aiding the pupil to choose courses, subjects and extra-curricular activities, adjust himself to other personalities of the school community, develop perspective and practice self-discipline

By HEBER HINES RYAN
Principal, Wisconsin High School, Madison

A GOOD deal of complaint is heard, particularly from college teachers of education, that practice in schools lags far behind research. It is alleged that important techniques, facts, principles, influences and potentialities are discovered every year by professors and graduate students; that these are exploded into the educational atmosphere with due acclaim and emphasis; but that the typical administrator or teacher merely pokes his head out, casually sniffs the new scent and then dives back into the stale air of his burrow. While it is not clear just where the responsibility for this miscarriage of professional pioneering lies, schools do seem slow to make use of new ideas.

Graphic and statistical methods, for example, are prominent in the lives of summer school students of education and I believe that such techniques may be adapted to throw light on many intimate problems of daily school life. It is my purpose in this article to describe the use made of some of these relatively simple devices in the guidance program of Wisconsin High School.

For the purposes of this discussion a somewhat restricted definition of guidance is assumed. For example, guidance is not conceived as including improvement of methods of teaching, formulation of the course of study, supervision of student health or regulation of the program of extracurricular activities. The typical adolescent needs intelligent aid. His efforts at adjustment to the complex of high school experiences leave something to be desired—something to be supplied from the resources of a more mature wisdom. When the pupil seems unable to make his own adjustment, guidance steps in. It is in the choice of courses, subjects, extracurricular activities, motives and intellectual tastes, in the adjustment to other personalities of the school community, in the development of perspective and in the practice of self-discipline that guidance is most needed. Self-reliance is the most important goal of guidance and the steady growth of self-reliance is the most accurate barometer of the effectiveness of guidance.

Among the questions that arise in the operation of the guidance program are four which Wisconsin High School has found it possible to study by graphical methods. These are: (1) Is the pupil accomplishing as much as he should in high school? (2) Does the quality of the pupil's high school work predict success for him in college? (3) Is the pupil's mentality such that he should be encouraged to go to college? (4) Do the graduates of the high school do as well as they should in college?

Is the pupil accomplishing as much as he should in high school?

Only omniscience could give this question a categorical answer. But we can at least find out whether the pupil in question receives as good marks as other pupils of like mentality. To this end we make a scatter diagram to show the relation of scholarship to intelligence quotient (Fig. 1). Experience shows that high school girls get better marks, I.Q. for I.Q., than do boys. Separate diagrams must therefore be made for the two sexes. Only the boys' diagram is shown. In Fig. 1, each dot represents a boy; the abscissa represents

his I.Q., the ordinate his scholarship. His scholarship is computed from his marks over a period of two school years and is expressed as an honor quotient (H.Q.). An "A" is given a value of 3; "B," 2; "C," 1; "D," 0, and "Failure" —1. These values, for all the boy's marks of the two years,

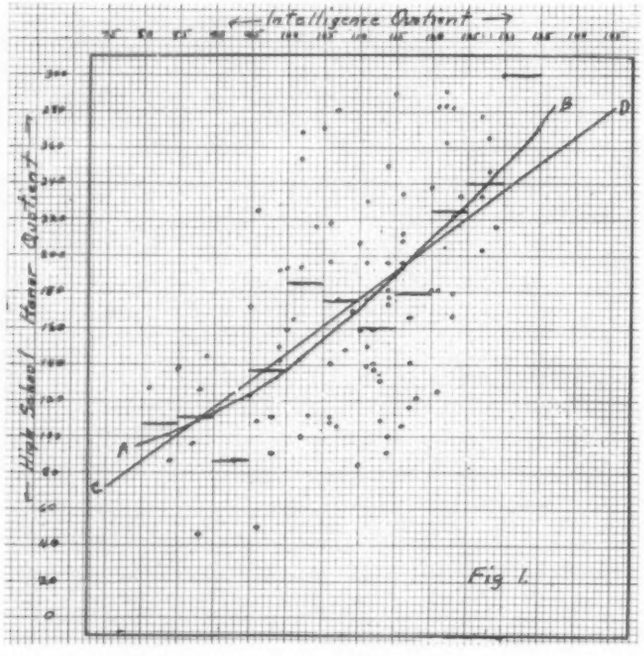


Fig. 1. Relation of scholarship to intelligence quotient of eighty-eight boys in the Wisconsin High School.

are totaled and the resulting sum is divided by the number of marks. Thus a "B" average would give an H.Q. of 2.00, or, omitting the decimal point, 200. A "C" average would give H.Q. 100. If half the marks were "A" and half "B," the H.Q. would be 250.

To use this diagram for rating achievement in the individual case, we may compute the mean achievement for each five-point interval of intelligence. That is, we may find the average H.Q. of all pupils of I.Q. from 75 to 79, inclusive; of all pupils of I.Q. from 80 to 84, inclusive; and so on through the range of I.Q.'s. Each of these averages is represented on the diagram by a short horizontal line. If these lines were connected serially by straight lines we should have a violently zigzag line. We show the general trend of these averages by means of a compromise line, a curve which is really a smoothed version of the zigzag line. (Line A-B, Fig. 1.)

Or, if we prefer to show the trend of the distribution as a whole, we draw the line of regression of scholarship upon I.Q., using the formula

$$\frac{HQ}{IQ} = r\frac{SD_{HQ}}{SD_{IQ}}.$$ (Line C-D, Fig. 1.)

When either of these lines has been placed upon the diagram, the relation of a given pupil's achievement to his mentality may be seen in the position of his dot. If this dot is above the line, he is achieving more than others of like ability; if it is below, he is not making the most of his mental ability. Obviously, under the circumstances, no fine discriminations can be made. But a marked disparity between achievement and ability in any given case becomes apparent at once. The cases in which achievement falls far below this norm are those that should be studied carefully. They may be called "cases of extreme negative disparity." Such pupils, especially negative disparity cases of high I.Q., are usually found to be handicapped by one or two major difficulties of a remediable nature.

The discovery, diagnosis and treatment of these cases of extreme negative disparity is one of the most fruitful and satisfying of all guidance activities. Without some such technique as that I have described, they are likely to go unnoticed. The principal or some other member of the faculty trained in elementary statistics should prepare the scatter diagrams with norm lines. There should be at least two diagrams, one for each sex. Blue prints of the diagrams should be furnished to home room advisers and to other guidance officers. Pupils of extreme negative disparity are proper subjects for case study. Pupils of extreme positive disparity, especially in the upper levels of intelligence, are to be suspected of unusual ability to

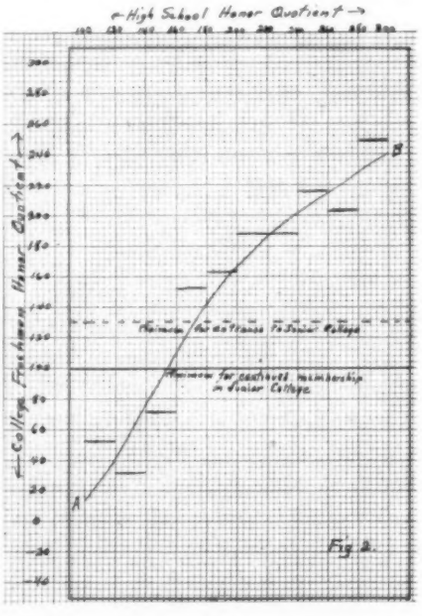


Fig. 2. Relation of scholarship in college freshman year to scholarship in high school of fifty-three boys.

profit by college training and should be encouraged, and aided if necessary, to go to college.

Reflection will suggest possible necessary variations in this procedure. It may be necessary, for example, to make a separate diagram for each class in the school. Internal conditions sometimes make the distribution of freshman marks quite different from that of senior marks. Freshmen

in their first-year foreign language classes are often in competition with juniors and even seniors, a fact that tends to depress the average freshman mark. A large school can make a new set of diagrams each year, since the large enrollment will offer an adequate number of cases; a small school

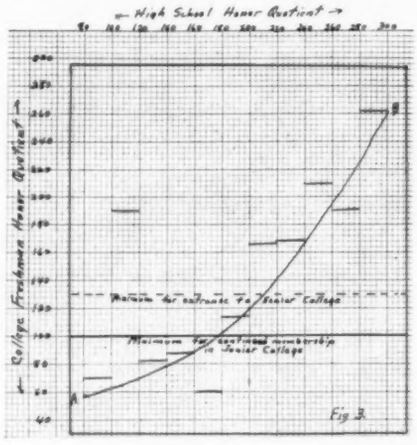


Fig. 3. Relation of scholarship in college freshman year to scholarship in high school of forty-five girls.

may have to base its diagrams upon the accumulated marks of four or five successive school years.

Does the quality of the pupil's high school work predict success for him in college?

In seeking an answer to this question we may employ the same technique as that used for the first, except that here the high school H.Q. is used as the predictive variable, and the other variable is the H.Q. earned as a freshman in college. It is quite common for colleges to send to principals of tributary high schools reports upon the work of college freshmen. Thus, by studying these reports over a period of four or five years, the principal can relate college freshman success to level of high school achievement. Both are expressed in terms of H.Q. Each dot on the diagram (Figs. 3 and 4) represents a college freshman. The abscissa shows his high school H.Q., the ordinate his college freshman I.Q.

For a norm line we have found it desirable to use the curve which represents a smoothing of the zigzag line connecting the mean of the five-point interval columns. As is evident in Figs. 3 and 4, the curves for boys and those for girls are different in shape. The reader may make his own surmise as to the cause of this consistent difference. This peculiarity suggests the influence of a factor or factors which do not operate in college as they do in high school.

Using these charts, the adviser, or the pupil himself, may see whether the high school achievement is forecasting college success. In Figs. 2 and 3 there are horizontal lines indicating critical levels of college achievement. The lower (H.Q. 100) is the line below which the pupil must not fall in his freshman year if he wishes the privilege of remaining in the University of Wisconsin. The upper (H.Q. 130) is the level above which the student must keep his work in his freshman and sophomore years if he is to be admitted to the senior college.

The use of this chart over a period of years will enable the principal to find a lower threshold for the school's official recommendation for admission to college. If, for example, in a five-year period no boy whose high school H.Q. for his four-year record falls below 120 succeeds as a college student, the principal will in the future be justified in withholding the recommendation from boys of that achievement level, leaving them the entrance examinations as their only recourse. Pupils whose achievement falls barely above this level may well be advised to try their talents in other kinds of enterprise. A pupil whose high school record is somewhat more promising, but dubious, should inquire of himself whether that record properly represents him. If he feels that he is capable of a level of high school achievement which is predictive of unqualified success in college, he has a semester, or a year, or more, in which to demonstrate it.

Whether college scholarship should be judged upon the record of the first freshman semester, of the second semester or of both, the school will have to decide for itself. It is not clear which of

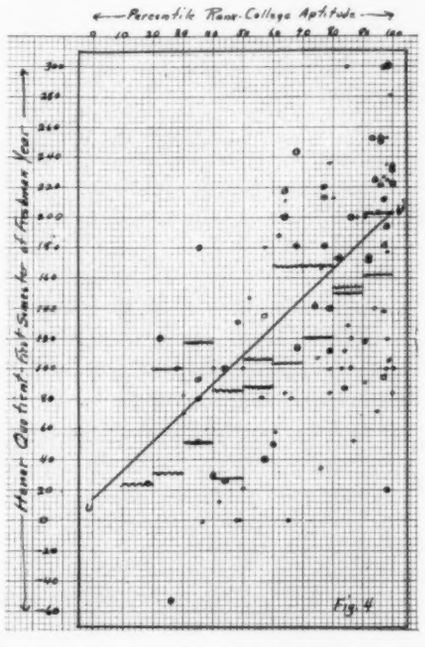


Fig. 4. Relation of college freshman marks to percentile rank in college aptitude test. For each ten-point interval of percentile rank the mean level of scholarship is shown by a straight horizontal line.

these semesters rests greater responsibility upon the preparatory school.

Is the pupil's mentality such that he should be encouraged to go to college?

As suggested in preceding paragraphs, the pupil's high school record is one of the two or three best means of predicting his college scholarship. The mental test is another. We may, therefore, make use of still another diagram, one which

depicts the relation between intelligence quotient and college freshman H.Q. The records of four or five recent graduating classes will offer data for this diagram. My experience has not shown clearly whether or not one diagram will serve for both sexes.

The day when we shall be either willing or able to deny admission to college because of low score on mental tests is still far in the future. But the careful administrator can find tactful ways of telling the pupil or even the parent that the evidence argues against a college career. Parents are becoming more and more willing to accept this kind of advice, and a greater and greater number of principals are finding themselves able to control this problem.

High School Seniors Given Mental Rating

Do the graduates of the high school do as well as they should in college?

Some factors that influence the success of boys and girls in college are not under the control of the high school; other factors are. It is this latter group which the school should study most carefully. The graduates of the A High School do excellent work in college; those of the B High School do poor work. Before the officials of these two high schools can interpret these facts they must know how to evaluate the material of which their respective student groups are made. A complete evaluation of this kind would be practically impossible, but the comparison can at least be placed upon an equitable basis so far as mentality is concerned.

Registrar F. O. Holt, University of Wisconsin, conducts each year a testing campaign in which some 20,000 high school seniors, including practically every senior in the state, are given mental ratings. These scores are reduced to percentile ranks. Each high school is thus informed as to how each of its seniors ranks in mentality among all the seniors of the state. With these data it is easily possible to relate the scholarship of the university freshmen to percentile rank in mentality. Line U-U′ in Fig. 4 is the line of regression of freshmen scholarship upon mental rating. By the same method each high school can work out its own norm lines and superimpose them upon those for the state as a whole. A comparison of the high school norm with the state norm will indicate roughly whether or not the graduates of that high school are doing as well as they should. In Fig. 4 a comparison is shown, not between classes from two schools, but between two classes from the same school. The dots represent members of the class of 1929 of Wisconsin High School. The circles represent members of the class of 1930. The interval means for the class of 1929 are shown by short straight lines; those of the class of 1930 by short wavy lines. While these classes are of about the same average mental ability, the class of 1930 did much better work than did the class of 1929 at all but two ability levels. It is also shown that the class of 1929 did not generally make the most of its ability, while the other class did.

This technique can be used by the principal of an elementary school to judge whether the products of his school do as well, in proportion to their ability, as the other pupils who make up the first-year class of the next higher school.

In using the scatter diagram and its derivative norm lines to obtain partial answers to these four questions, due allowance must be made for the fact that one is not using precise measures and that the computations omit some influential factors. The degree of reliability of such a device cannot be determined by mathematics alone; its value for use in a given school will have to be found by checking the predictions against the outcomes.

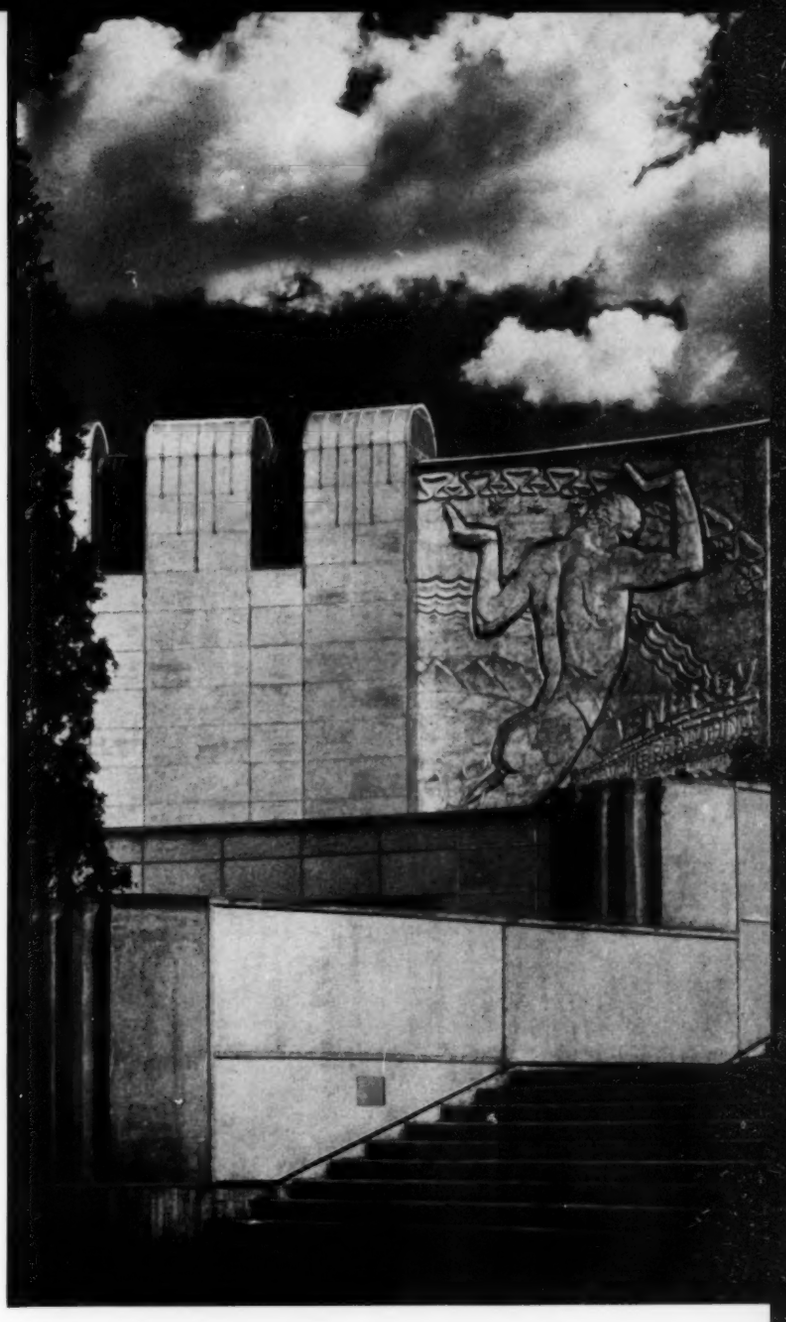
One question which occurs to the guidance officer is this: To what extent shall we take the pupil into our confidence in the use of such predictive techniques? Shall we tell him the ratings which our computations furnish? I believe that only one of those described above should be given to the pupil, and that is the prediction made by the high school scholarship record. The pupil's achievement is always partially under his control. If he does not like the prediction he has a chance to change the predictive factor under consideration. In the three other cases, since the predictive variable is subject to little, if any, improvement by design, no good purpose can be achieved in most cases by acquainting the pupil with the various facts.

Discouraging a College Career

The parent, however, will often be aided in his planning by being supplied such information as the school has about the child. Warning must always be given, of course, as to the limitations in reliability of this information.

In advising pupils and parents to give up the idea of a college career, one often has to meet the consequent problem of restoring both parties to a hopeful, cheerful and self-confident state of mind. Superficial consideration of the whole matter of college training may cause the parent and child to feel that the door to human success is being closed. But let anyone who feels that way about the matter study the biographies of persons whose names are nationally known, or who are elected to public office, or who amass wealth, and let him be comforted accordingly!

Educators will find much of interest at the Chicago exposition. The unique exhibits and buildings make the Fair an experimental school and suggest many ideas regarding future building trends.



A Century of Progress—An Education for the Educator

By CHESTER HART, B.Arch., Chicago

EDUCATORS will find A Century of Progress Exposition, to be held in Chicago from June 1 to November 1, a school of modern life where, based on a historical background, present and future developments are proffered.

Noncommercial exhibits by scientific societies and associations, dealing with basic scientific principles, have been supplemented by manufacturers' exhibits showing the practical application, development and manufacture of their products rather than a great array of finished articles. These exhibits are fundamentally different from those of past expositions and conventions because the outstanding discoveries of the past one hundred years are portrayed as much as possible by actual demonstration, by motion pictures and by models. Original methods and materials have been used in such a way that the exposition is actually an experimental school and research laboratory. It would be impossible to find in any one place as complete a cross section of American civilization as is found at this exposition. Nor is this all, for many foreign countries have installed buildings and exhibits to depict their own cultures.

The foundation of our civilization lies in the basic sciences of mathematics, physics, chemistry, biology and geology. The influence of these basic sciences on industry and on medical science is seen in all the displays on the exposition grounds. The basic sciences, as well as medicine in all its branches, are treated in the Hall of Science. The manner in which the sciences are illustrated will interest educators because there is a scientific soundness and sequence in all the exhibits, even though they are arresting and spectacular enough to catch the attention and interest of the average layman. The necessarily fundamental but dramatic way in which abstruse scientific truths are por-

trayed might well be carried into the school organization.

Mathematics appears as a ubiquitous science concerned with the solution of scientific problems rather than dealing with its four subdivisions of arithmetic, algebra, geometry and analysis. Working models are used for demonstration, and the entire subject is depicted in its most vital form. Conic sections, methods of computation, the harmonious analysis of curves as well as many other mathematical principles are demonstrated. Interesting applications of these properties to the sciences of astronomy, electricity, mechanics, physics, geology and chemistry lend added significance to the universality of mathematics.

Features of the Physics Section

The purport of physics in our development is given in a sequence of five groups beginning with molecular physics, and proceeding to sound, magnetism and electricity, the radio valve tube, light, and ending with manifestations of the shorter rays. The molecular physics display demonstrates the pressures exerted by compressed air and steam, and shows how the pressure is due to the bombardment of the walls of the container by a working model with steel balls to represent the molecules. The significance of molecular physics in refrigeration, electric heating and its other industrial applications is shown vividly. The production and translation of sound into light are demonstrated, and there is a special exhibit showing the significance of sound to the talking motion picture. A great variety of experimental equipment is set up for operation by the visitor.

The fundamental principles of magnetism and electricity necessary to explain the dynamo, the transformer and the electric motor are included in the physics section. How these are used in industry and the home is shown in the many exhibits in the Electrical Building. The function of the heart of the radio, the valve tube, is explained by a demonstration of the filament action, grid and plate, which shows how sounds are amplified and continuous oscillation produced. The phenomena of light and its application in the photo-electric cell are analyzed. Methods of demonstrating cathode, canal, alpha and beta rays are exhibited, and the "Hodoscope," designed by Doctor Johnson of the Bartol Institute, shows the paths of individual cosmic rays by means of flashing lights.

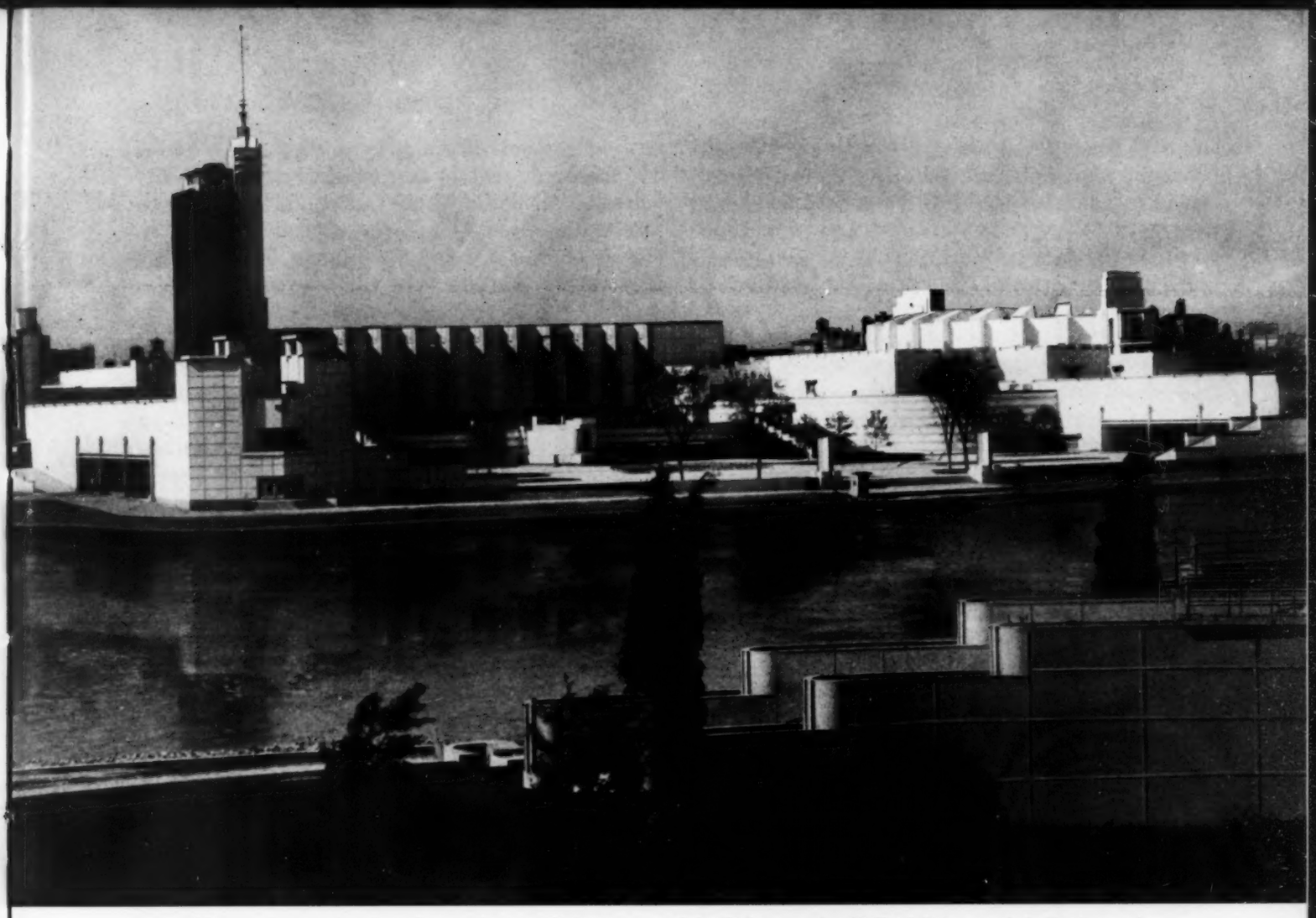
In connection with chemistry, which is equal in importance to physics in the present development of industry and daily life, the various methods of producing changes in chemical composition, are shown. The interpretation of the atomic structure into terms of the physical elements,. the electron and proton are shown clearly. The conversion of raw materials into useful articles by the application of the principles of catalysis, absorption and electrical precipitation is performed and illustrated. Biochemistry forms a link between chemistry and biology as well as medical science in its demonstrations of the advances made in our knowledge of foods, vitamins and pharmaceuticals. A huge robot has been constructed to show the action of food in man's digestive tract. The robot explains the digestive processes while they are going on.

In the section on biology there are depicted the structure and functions of man, animals, plants and bacteria, and their origin, growth, geographic distribution and hereditary and environmental influences on life. Starting with simple forms, an orderly progression follows until the more complex forms of life are reached. This process is illustrated with preserved and living specimens, models, transparencies and motion pictures. A life size model of a man shows the circulation of the blood, and other models show the mechanism of speech, the digestive system and the control areas of the human brain. Tree growth is dramatically depicted in a section of a basswood twig magnified to seven and one-half feet in diameter, which adds a year's growth in seventy-five seconds and becomes nine feet in diameter by accretion of new material. Marine plant and animal life form part of the biology section, and the bathysphere of Dr. William Beebe will be on exhibition. Another interesting piece of equipment, the aluminum globe in which Dr. August Piccard ascended into the stratosphere, is also on exhibition in the biology section. Doctor Piccard will make another ascent into the stratosphere from Chicago this summer.

Technique Will Interest Educators

Geology is illustrated with dynamic models showing the processes of erosion, deposition, mountain formation, the causes and activities of volcanoes, geysers, earthquakes and artesian wells, and the occurrence of coal, gas, petroleum and metallic ores in nature. How fossils are extracted from the earth and reassembled into the forms of extinct animals is shown in a simple and interesting manner. "A clock of the ages" is shown ticking off the history of the earth from the earliest periods to the present time.

In all these scientific exhibits the actual equipment used for demonstration, as well as the method and technique for vividly telling a consecutive story, will interest educators. The amount of the exhibition technique that can be adapted for use in schools rests entirely with the individual, but it is certain that such a vital display of scientific principles, organized by men eminent in their par-



Where the magic of modern science will be portrayed in Chicago—the Hall of Science of A Century of Progress. This huge structure, 700 by 400 feet, is shaped like a U, and encloses on three sides a court capable of accommodating 80,000 persons.

ticular subjects, cannot but lead to significant developments.

On the lower floor of the Hall of Science are the abstract sciences applied to the practice of medicine. American and foreign medical societies and institutions, as well as manufacturers of medical and hospital supplies, have installed interesting exhibits. The history and progress of medicine, surgery and dentistry, and their significance to human welfare is demonstrated in these coordinated and cooperative displays. Actual experiments will be carried on whenever possible, and it is expected that the research on sleep and fatigue conducted by Colgate University will not be devoid of subjects for this type of experimentation. Great ingenuity has been used in presenting the anatomic and physiologic studies. One of these studies consists of a transparent man whose deep organs are illuminated so that their location and relation to the skin may be determined.

Across the lagoon is the Social Science Building, which is connected by a bridge to the Hall of Science. Here the American family is depicted in its historical and present setting to show the changes in activities and environment that have occurred in the past century. How these changing conditions motivate the developments in government, education, entertainment, occupation and social work forms part of the material in the social science section.

A series of pictures, dioramas and motion pictures are used to illustrate the haphazard manner in which a great urban community was developed in the past century. The growth in population, the changes in racial distribution, the movement of population within the city limits, the growth and diversification of industry and transportation are some of the factors considered in the shaping of this community. These elements must be understood in order to form a basis for the sound town planning that must replace the random growth of the last century. Cognizance of all these activities is essential for proper educational and school planning.

The development of the American school in response to new demands made by the change in family and industrial environment is the general theme of the section on education. The possibility of a larger educational program is indicated by the change in the ratio of adults to children in the past one hundred years. At the same time there is an increasing complexity of social and economic

life, and the children play a decreasing part in the economic community necessitating a broadening of the educational scope. Thus the growth and development of the school in vocational and recreational education, training for citizenship, for the professions and for leisure are shown. The relationship of school administration to the general social structure and government organization occupies a significant place among these exhibits.

A model classroom is part of the central stations exhibit in the Electrical Building, which illustrates specialized classroom illumination for the conservation of eyesight. The application of the photo-electric cell to classroom lighting is a feature of this model.

Exhibits by Progressive Schools

A group of progressive schools are assisting in the exhibition of the newer developments in education. The new attitude toward the individual child, the emphasis on self-expression instead of mere preparation, and the attempt to substitute living experience whenever possible for book learning are illustrated. The exhibits showing the use of visual education and radio education are under the direction of Dr. Frank L. Freeman, University of Chicago.

The Electrical Building, which is adjacent to the Social Science Building, contains exhibits that show the applications of electricity and magnetism to practical use. These exhibits by manufacturers are coordinated with those of the basic science section, and dynamic models, equipment in operation and motion pictures are used to give a comprehensive display. Radio and other methods of communication occupy two large sections of the Electrical Building, and a third section shows light and power generation and transmission with its practical applications to the uses of institutions, industry and the home. Many labor-saving and safety devices are demonstrated, and the photo-electric cell and television are shown in both spectacular and common usage.

A Century of Progress Exposition was opened by light from the star Arcturus acting upon a photo-electric tube in Yerkes Observatory, Williams Bay, Wis., and this faint impulse was carried by relays and magnified until there was sufficient electric power to open the exposition. Less dramatic, but more practical things such as air conditioning, heating and sun lamp radiation and other recent developments are shown in principle. There are also operating displays of the most modern equipment in the electrical field. The vital force exerted by electricity in shaping our present and future environment is presented.

A large section of the Agricultural Building is devoted to foods. Here as in all the other exhibits, processes rather than finished products are used to convey information about foodstuffs. The methods of preparation used to preserve the nutritive value, the shape, the size and the color of foodstuffs are illustrated. The effects of various foods on health and disease are correlated with the exhibits of the medical, chemistry and biology groups. In the children's restaurant on Enchanted Island various foods will be dramatized by means of puppet shows. This simple way of telling the importance of various foods to children is well known in many schools, but the technique of presentation used at the exposition, which was evolved by Tony Sarg, is worthy of investigation. The work that is being carried on for the benefit of rural schools and communities will be exhibited by the agricultural research laboratories and the experimental stations of several universities. Farm equipment and farming methods will also be covered in this section.

Enchanted Island provides facilities for the care of children by the hour or by the day. Children may be left here with the assurance that they will be cared for and amused. The most modern methods of handling, training and amusing children are demonstrated on this five-acre tract. The facilities include: a children's theater; separate playgrounds and playrooms for children from three to five years of age, for girls from six to fourteen years of age and for boys from six to fourteen years of age; a pony track; a miniature zoo, and tropical garden; a miniature railroad with one-half mile of track; a children's library and numerous other forms of entertainment. Enchanted Island is completely landscaped, and the buildings are all scaled down to fit the requirements of the children to be accommodated.

"The World a Million Years Ago"

The Transportation Building contains all types of conveyances, and the exhibits show the history and development of the airplane, the railroad, the steamship and the automobile. The complete operation of assembling an automobile is shown in a near-by building.

There are many exhibits in the General Exhibits Building which do not fall under any of the classifications already mentioned.

An American Indian group is present to show the cultural development of the American continent before the arrival of the Europeans. There is a reproduction of a Mayan temple, the Monjas at Uxmal, and five groups of Indians living their native life present the five types of culture of the woodland, the plains, the Northwest Coast, the Navaho and the Pueblo Indians.

"The World a Million Years Ago" shows life-size

models of prehistoric plants and animals animated by means of hidden motors. The animals move and emit cries in a lifelike manner.

The Lincoln Group contains reproductions of buildings that were significant in the life and career of President Lincoln. There is a collection of Lincolniana assembled from a great many sources, which is of exceptional interest.

The ship used by Admiral Byrd on his Antarctic expedition, the "City of New York," is moored in the lagoon and is open for inspection. The ship contains the scientific instruments and paraphernalia used on the expedition as well as a scale model of the expedition's camp, Little America.

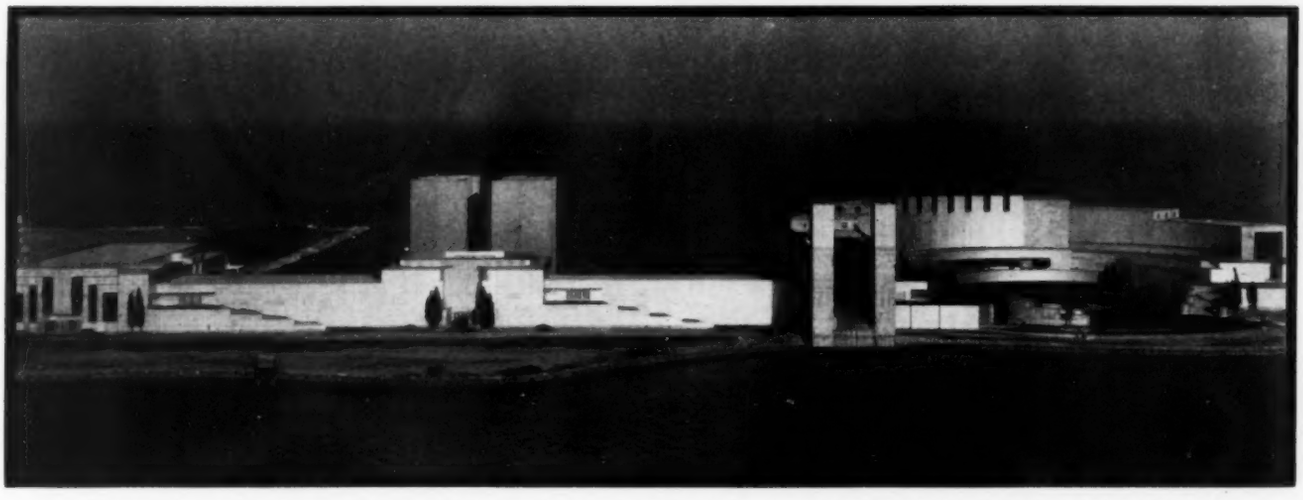
Various European and Oriental villages have been reproduced, and native craftsmen are seen making the articles for which each of the countries is famous.

One copy of every magazine that is published, both foreign and American, is on display in a special building where the news of the day will also be presented.

The Adler Planetarium, which is the only planetarium in America, is on the exposition grounds. The reproduction of the heavens and the movements of the astronomical bodies are shown in the central dome section, where special lectures on astronomy also are given. The instrument used to project the reproduction of the heavens of either hemisphere is within plain view of the spectators. Instruments, photographs and transparencies of astronomical interest are on display in the corridors of the building.

A special collection of world famous paintings has been assembled for exhibition at the Art Institute of Chicago, which is only a short distance from the exposition grounds.

The external appearance of the exposition buildings is so spectacular that a person may easily be diverted from giving consideration to the design, construction, materials and equipment. From the conception to the completion of each structure erected on the grounds an attempt has been made to give an interpretation of modern building through the logical use of new materials and facilities. A special building ordinance was adopted for the exposition grounds, which made it possible to use types of construction proved sound by engineers, but not as yet accepted by law making bodies. Obviously this construction is not intended to be of a lasting type, yet every structure contains innovations that undoubtedly will have an influence upon future buildings of a permanent character. The very fact that the exposition buildings are not permanent allows a freedom in design and construction that would be hampered by cost if experimentation were to be carried on in durable materials. The buildings are not entirely experimental, however, for they are based on studies made by the architects, engineers and research staffs of many industries.



Electricity's wizardry will be unfolded in this group of buildings on Northerly Island—the Hall of Social Science (left) and the Electrical Building (right). The building in the center will contain exhibits of telephone and telegraph communication.

All of the main buildings are of the windowless type, which eliminates the uncertainty of daylight and provides the exhibits with reliable artificial illumination. Problems of exterior design, lighting, heating, ventilating and air conditioning confronted the architects. Ingenuity and resourcefulness were required to meet this situation, and the completed buildings show how the difficulties have been overcome. Just how far the windowless type of building will be carried into permanent construction projects cannot be predicted, but at least one factory of this type is now in operation. The thought that this type of building will eventually be used for schools may seem far-fetched, and yet it is possible that in urban communities where

the air is dirt laden, the daylight is of questionable illuminating value and the exterior view is uninspiring, a structure of this kind might be considered desirable.

There are many exhibits of building materials at the exposition that cause the visitor to wonder just what future buildings are going to be like.

A circular tower and exhibit hall that are built with hollow glass blocks, slightly larger than bricks, are offered as a pure experiment in the hope that individual reactions will be expressed. The walls are translucent to form a protective screen from outside observation, and the dead air space in the glass units forms an insulation against heat and cold. The glass blocks are made in various colors, and the wall may either have the luminous glow of a single hue or may be mottled with varicolored patterns. Are there any possibilities for the use of this material in schools? Is it possible that eventually interior walls and partitions rather than exterior walls will be considered the proper place for glass block construction? This material seems to symbolize one aspect of A Century of Progress, in that it stimulates thought concerning future trends.

A New Psychology of Building

Home Planning Hall is a center for the housing and building materials group. Possible future developments in home environment that will influence the organization and construction of the school, as well as alter the arrangements of the domestic science department, are contained in the exhibits in this hall. New materials and new conditions brought about by industrial research will affect the activities and importance of the home, and the resulting changes may easily be as great as those that have occurred in the past century. With the advent of prefabricated houses that may be purchased like an automobile, and erected in a few days at comparatively small cost, the national psychology may either return to the home owning type of the past, or it may become the attitude of the rover because of the ease with which the houses may be disassembled and reerected.

The prefabricated house that demands only a minimum of field work in erection has the advantage of lowering construction costs, provided there is a sufficient demand to make quantity production possible. These houses will not be exact duplicates of each other, because the unit type of construction will allow infinite variety. These factory fabricated building units have already been considered for larger buildings, and the school with its comparatively standard size of classroom might be one of the first of the larger buildings that will be able to use this method of construction to advantage. The radical changes in building construction and materials have developed a new approach, a new psychology of building. The story of this progress is told by the structures on the exposition grounds, and the manufacturers' exhibits show the production of materials and the fabrication and erection, either by models, motion pictures or by actual operations.

A Century of Progress may be considered an educational institution or an experimental school that is carrying information to all the people. The historical background of our present civilization is portrayed, and the cultural and industrial processes of today that were built upon this foundation are shown. Based upon this information there follows logically the query about future developments and their effect upon national life and character. The broad survey of the past and present with the latest developments in all the scientific and industrial fields permits intelligent speculation. It is this philosophy of development, of processes, of research that pervades the exhibits rather than the static displays of manufactured articles. It may be expected that A Century of Progress, like all other successful expositions, will have a profound influence upon the life and culture of the United States. The Exposition of 1893 brought this country out of the gingerbread period and restored classical design to architecture, but the germ of modern design was also to be seen in the Transportation Building designed by Louis Sullivan. This germ of modernism has developed and expanded.

Other aspects of A Century of Progress of interest to the educational field will be discussed in later issues of The NATION'S SCHOOLS.

"Listening Centers" Provide Radio Lessons for Mountaineers

A new system of adult education by radio has been inaugurated in Kentucky, which is designed especially to reach the isolated mountaineers, the vast majority of whom do not own radio receiving sets. The University of Kentucky and the Kiwanis Clubs are sponsoring the program.

The plan calls for the establishment of listening centers in settlement schools, general stores, newspaper offices or community halls in the Kentucky mountains, where from fifteen to thirty individuals can be accommodated. A system of centralized supervision of control is planned by the university. The first center was opened on June 3 at Cow Creek. The establishment of fifty or more such centers is contemplated.

Infant Schools of France—Their Construction and Equipment

French children between the ages of two and six attend special schools where abundant sunlight, scrupulous cleanliness and attractive surroundings create a pleasant environment. Discipline is strict and teaching methods are formal

By WALTER M. WALLACK, Teachers College, Columbia University

THE program of *l'Instruction Ministérielle* of France for infant schools recognizes the importance of sunlight, fresh air, cleanliness and tasteful decoration in the environment of small children. Buildings for infant schools are specially constructed and attractively decorated, and children learn from their surroundings to appreciate beauty of line, color, form, movement and sound.

In the infant school are enrolled the youngest group of pupils in the French school population, those whose ages range from two to six years. A community's school population—including pupils in elementary education whose ages range from two to sixteen years—is usually accommodated in three distinct building units grouped upon one site. One of these units is for boys from six to sixteen years of age, one is for girls of the same age and one is for the infant school.

Children of the infant school are divided into three classes. One section includes children whose ages are two to four years, another is for those of four to five years and a third includes those between five and six years.

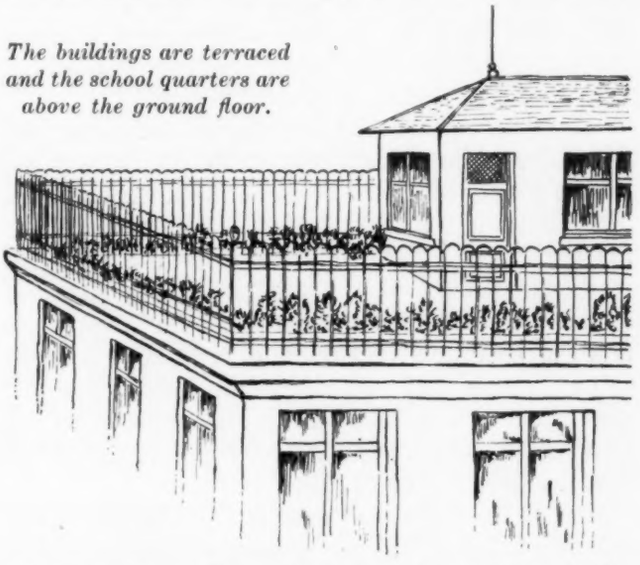
Certain regulations standardize structure and equipment of the infant schools. Anyone who has visited French schools, however, recognizes that there has been reasonable liberality in the application of these requirements.

The area of the site for an infant school is usually estimated at about 10 square meters per pupil with a minimum requirement of not less than 500 square meters per site. A central location that is open, easily accessible and not close to noisy, unwholesome or dangerous establishments is preferred.

A low masonry wall surmounted by a plain wood or iron fence ensures necessary privacy without impeding free circulation of air or cutting off sunlight. In the Toulouse region fences of curved tile have a pleasing appearance.

The area of the play yard is calculated on the basis of 3 square meters per child with a minimum requirement of 150 square meters. The soil is sandy and leveled to permit good drainage.

A portion of the yard must be sheltered in order to permit recreation in the open air during bad weather. Asphalt, cement or wood block is used for paving under the shelter and for walks. Shelter supports, walks and similar obstructions in the yard must have all edges, corners and angles rounded for the sake of safety. Open ditches, sharp mud scrapers and similar obstructions are prohibited.



The buildings are terraced and the school quarters are above the ground floor.

Flower gardens are planted around the borders of the yard near fences or buildings. Foliage and fruit trees grow in the yard and are protected by low circular curbs which serve as containers for sand with which the children play. Climbing vines clinging to the walls of the buildings protect and beautify them. Clematis, Glycines or other generously branching plants add attractiveness to the grounds. Under the shelter and at various places in the yard are benches of the slat type, much like

those seen in American parks. Similar benches are also used in some of the special school rooms. In the center of the yard is a large box of clean, damp sand in which children may play.

The most distinctive feature in the appearance of the school structure is its terraced effect. For hygienic reasons it is not desirable to have school quarters on the ground floor. They are elevated, therefore, to higher levels, usually the first story, and surrounded by terraces which may form the roof of a part of the ground floor level of the structure. Certain special rooms and teachers' quarters may occupy the lower levels. The terraces, covered in part or not at all, conform to the general scheme of providing sunlight, fresh air and tasteful decoration. Flowers and plants grow in boxes near the edges of the terrace.

Must Have Air and Sunshine

L'Instruction Ministérielle anticipates parental objection to having children climb stairs to reach the first floor and suggests that inclined ramps be substituted for stairways whenever possible. There is the further suggestion that under strict discipline and with an attentive teaching personnel, stair climbing may be done readily and without danger by little children who are already familiar with that exercise in their own homes.

When an infant school occupies the same site with schools for older pupils, as is usually the case, the infant school must be some distance from the other buildings so that the older pupils and their masters may not be disturbed by the frequent recitations of the young pupils. In any case the infant school building must be as far as possible from any other structure and favorably situated to receive air and sunshine. For this reason the greatest length of the building is exposed to the south or southeast in such a way that it will never cast a shadow over the play yard.

Walls are of masonry construction, either rough stone or brick. All angles and corners are rounded. Although wood floors are sometimes used under certain conditions, concrete floors to which a covering of linoleum is glued are preferred. The minimum height of ceilings is 4 meters. They are plain and smooth. All angles where ceilings, walls or floors meet are rounded on a radius of 10 centimeters to form a sanitary cove.

Interior facings are covered with a smooth glossy coating that permits frequent washing. Painted surfaces are in light or clear tones of lacquer or enamel. Revetments of glazed tile extend to a height of 1 meter 20 centimeters above floors. Moldings or decorations that may collect dust are not used.

Single doors are 90 centimeters in width and open outward but never directly from rooms to the exterior of the building. Entrance doors open into vestibules and are protected on the outside by small wooden awnings.

Windows are rectangular and of the swinging type. Building supports are reduced to that number strictly necessary for the solidity of the structure in order that the greatest possible area of window glass may be provided. Lower sills are 50 centimeters or less above the floor. Shades are of a material adapted to intercept the sun's rays without hindering circulation of air. Skylights are believed to be of great value for augmenting light admitted through windows. The French believe that children should live in glass houses.

All stairs must be straight and provided with landings. The minimum width of steps is 1 meter 35 centimeters and they may not be over 16 centimeters in height. Treads are from 28 to 30 centimeters in depth. The minimum height of outside hand rails is 1 meter 30 centimeters. These rails are studded with protruding knobs so that children may not slide upon them. Inside rails at the height of a child's hand are placed along the walls.

Modernized schools are heated by steam radiators. Foot warmers and drying racks for clothing are generally provided. Hot water for washbasins and baths is supplied rather sparingly. Ventilation is usually the direct-gravity type. Semi-indirect, artificial lighting, by means of electricity when obtainable, is customary.

Panels Give Illusion of Sunshine

Children's sensibility to color is recognized. The interior decoration of the infant school is artistic and in harmony with childish mentality. Here and there in good light are niches for plants in winter. Façades, rooms, halls, vestibules, corridors and stairways are artistically decorated in brilliant enameled tile or multicolored glass. Light playing upon these brilliant colors produces innumerable changing effects to amaze and delight the child who is avid for variety. In the north of France certain verandas are ingeniously arranged with straw-colored panels of glass so as to give the illusion of sunshine even when skies are grey.

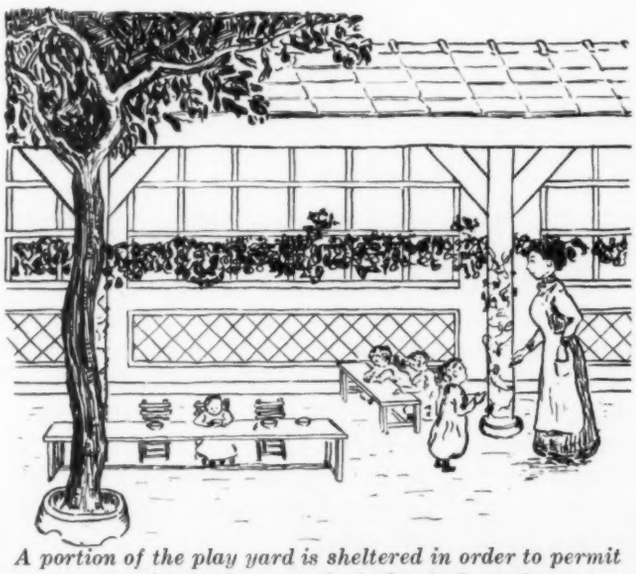
The well arranged infant school requires as a minimum the following rooms: entrance vestibule, reception room, recreation room, cloakrooms, classrooms, rest room, lavatory, lunchroom, kitchen, toilets and quarters for the staff.

The vestibule serves in part as a waiting room for parents. In the reception room parents and others are received for conferences by members of the staff and, if there is no other room for the purpose, children receive physical and health inspections there.

The large recreation room immediately suggests the activity of play. It is a veritable corner of toyland. Low cupboards with sliding doors make it possible for a child to select whatever object he may fancy. Cupboards have flat tops upon which vases of flowers, potted plants, aquariums and statuary are arranged in pleasing effect. There is also a generous supply of damp sand placed in boxes about the room.

One cloakroom is adjacent to each classroom. There is no contact between garments in the cloakroom and air circulates freely about them. Parents are urged to provide children with an extra pair of shoes to be left in the cloakroom for occasions when the weather is bad. Thus a child is not required to wear wet or muddy shoes after he arrives at school. Racks for shoes and benches upon which children may sit are provided.

Classrooms are rectangular in shape. Area is calculated to allow a minimum of 0.64 square meters per child. The maximum width is 8 meters and the maximum capacity is fifty children. These rooms are properly located in connection with recreation rooms. When classrooms adjoin each other the doors between are soundproof. Connecting corridors are not less than 1 meter 60 centimeters in width. Built-in cupboards and shelves are provided for supplies. Other cupboards with glass doors serve for exhibiting the children's work. In the newer schools the old-fashioned gloomy blackboard is no longer installed. In its place are writing surfaces of colored or clear linoleum or white glass. These surfaces begin at 50 centimeters above the floor and are about 1 meter in height. Colored chalk is used in preference to the traditional white crayon. In some schools revolving writing surfaces of red or green linoleum are used. In others surfaces of the same material



A portion of the play yard is sheltered in order to permit recreation in the open air during bad weather.

Writing surfaces of colored linoleum are used in place of the old-fashioned gloomy blackboard. Colored chalk is used in preference to white crayon.

are turned as an endless belt by means of a crank.

The rest room is contiguous to at least one classroom and is separated from it by a partition partly of glass which allows the classroom teacher to watch over sleeping children. Whenever possible the rest room has an eastern exposure so that the afternoon sun and house flies will not interfere with slumber during summer months. In this room a small chamber partitioned off with glass serves to isolate suspected cases of illness. Because it is believed that blue tints dispel flies, the walls of rest rooms are sometimes finished in blue.

The wash room or lavatory is located most conveniently to the lunchroom and is easily accessible from all rooms. The main washbasin consists of a long trough over which a pipe runs full length. The pipe is pierced with small holes at an angle of about 45 degrees from the vertical. Children wash in the jets of water which flow from the holes. One valve which only the teacher can reach controls the water in the pipe. For special use there is a single bowl piped for hot and cold water.

When bathing facilities are available there are two rooms in the bath suite, one for dressing and one for the tub or shower. The dressing room is furnished with low benches, shelves for clothing and moleskin divans of table height.

The lunchroom is separated from the kitchen by a glass paneled partition which will permit surveillance of the children by persons in the kitchen. Open shelves are arranged along the walls for lunch baskets. Children's bibs hang upon hooks under the shelves. There are cupboards for dishes and linen. Long, low dining tables and benches complete the equipment. The school kitchen contains the usual equipment of a French kitchen.

The most common location of toilets in French schools is in separate buildings outside of the

school structure. Some schools have small inside toilet rooms on floors above the ground level. A few schools have all toilet accommodations within the buildings and there is now a trend toward this type of construction. The usual arrangement is to have toilets, urinals and washbasins in a small compartment at one end of a cloakroom which extends the full length of two classrooms. Special provision is made for each sex and for the school staff. Toilets are arranged in compartments. One compartment 55 centimeters in width and 80 centimeters in depth is allowed for each group of fifteen children.

Staff Members Live in School Buildings

Use of wood for partitions, floors or seats is avoided. Stools are of stone ware. The top rim of the stool is 8 to 10 centimeters above the floor and the opening is 10 to 12 centimeters in its shortest diameter. Automatic flushing is prohibited because the sudden rush of water is believed to frighten the children. Urinals for boys are provided in the same ratio as toilet stools.

Doors are prohibited on toilet or urinal compartments which are hidden either by a garden trellis covered with climbing vines or by a solid screen placed 60 centimeters in front of the compartments. These screens as well as the partitions between compartments are open at the bottom for 25 centimeters.

Members of the staff occupy comfortable living quarters in the school structure. The size and character of accommodations depend upon population of the city or town, the marital status of the teacher and the importance of his position.

Furniture is simple so that it may be cleaned easily. It is plainly decorated in colors that provide variation in effect and present an agreeable and artistic appearance. Much of the furniture is manufactured in local communities.

There is no fixed furniture in classrooms. Tables with flat tops and grooved edges are used. Four or five children seated upon individual chairs work at a single table.

Hammocks or cots are placed in the rest room in the ratio of one to ten children. Hammocks are more in favor than cots. They are arranged to radiate from a center post like spokes in a wheel. A large net of fine mesh is arranged over the group.

Instruction materials and equipment include animals of wood or rubber, dolls and doll clothes, soldiers, play house equipment, sand basins, loto games, wood blocks, puzzles, wheelbarrows, wagons, jumping ropes, hoops, pails, shovels, balls, beads, construction paper, raffia, colored cloth, scissors with rounded points and modeling clay. All kinds of busy-work materials are used—colored sticks, splints, cubes, rings and blocks; collections of pictures; slates and slate pencils; linoleum plates and white glass upon which writing is done with ordinary lead pencils or colored crayons; drawing and writing paper; crayons and pencils; collections for teaching the metric system; tuning forks, and Froebel method materials.

From the American point of view the French infant school is unique in that a serious attempt is made to begin the education of very young children by means of methods which, judged by American standards, are far from progressive. One has only to consider the list of instruction materials mentioned to get an indication of that fact. Discipline is strict and teaching methods are extremely formal. Teachers do much telling and directing and freedom as we think of it is seldom observed in the classroom. The chief virtue of the infant school is its artistic appointments which are superior to those found in American schools. In some ways the infant school is rather conveniently arranged for the type of program it houses, but on the whole it does not compare favorably with modern American school buildings.

Public Education During Economic Depressions

Readers of The NATION'S SCHOOLS who have followed the series of timely articles dealing with the progress of public education during periods of major depressions in this country will be interested to learn that the author, Royce S. Pitkin, has combined these four articles with certain other material and has published a most valuable monograph, entitled "Public School Support in the United States."

The monograph contains a wealth of material indicating the attitude of the public toward public education during former economic emergencies that were equally as depressing as the present one in their effect on the country. The optimism of outlook and the extra effort cheerfully made not only to protect but also to advance the interests of public education during former trying periods stand forth in strange contrast to current attitudes and trends. Every school superintendent and every principal should be familiar with these historical facts. Such information may be used effectively with parent-teacher associations, for newspaper feature stories, and with community leader groups in an effort to strengthen the presentation of current needs.

The Stephan Daye Press is the publisher.

Will Present Economic Crisis Promote Further Advances in Education?

If educators fail to make significant progress during the years immediately ahead, it will not be because of lack of precedent or lack of fields in which to labor

By ROYCE S. PITKIN, Headmaster, New London High School, New London, N. H.

SOME persons may argue that the depressions of 1837, 1857 and 1873 took place in a country that was mainly agricultural and therefore not likely to be so badly disturbed as one in which industrialization had reached a high level. That being true, according to these persons, the public school would not be at all likely to suffer serious reverses and therefore educational progress during those periods cannot fairly be compared with educational progress during the present collapse in business.

Although I doubt the validity of the argument, it is entirely proper that we should take a look at the developments of a period of economic depression when the United States was highly industrialized. Because of the closing of the frontier, the growth of the corporation, the rapidly increasing population, the rise of cities, the extension of the use of the machine and the marvelous increase in industrial interdependence, the last decade of the nineteenth century resembles most closely the period in which we now find ourselves. It is with the educational progress of these years that we shall now be concerned.

Millions of Laborers Unemployed

Except for brief recessions in 1884 and 1885, the years from 1879 to 1893 had witnessed another tremendous expansion in business enterprise in America. The volume of business transactions for the year 1892 was said to surpass that for any previous year. But the report of R. G. Dun & Co. for the next year showed the largest number of commercial failures and the greatest amount of liabilities recorded to that date. The year 1893 closed with the prices of commodities falling to new low levels, with millions of laborers unemployed, and with starvation and suffering in the industrial sections. Prosperity had not definitely returned until 1898, according to the conspectus of business fluctuations of Thorp and Mitchell, although there was a short revival in 1895. Farmers were seriously affected by the general cessation of business activity as well as by the railroad strikes of that decade and, in many of the Western states, by another series of droughts.

Except for certain of the Western states that were overwhelmed with the forces of adversity, a general advance in public school support was seen throughout the country. True to its traditions for making educational progress during times of economic disaster, Massachusetts again marched steadily forward in the typical American spirit. Its record in school support for the period may be taken as representative of the nation as a whole.

School Expenditures Increased 35 Per Cent

From 1891 to 1899 that state showed an increase of 29 per cent in the average daily attendance of the public schools, with an increasing proportion of the number of children of school age enrolled. Average length of the school year advanced from 171 days to 189 days and the number of teachers increased 24 per cent. The average monthly salary of men teachers increased 1.7 per cent and that of women teachers 13 per cent. With a decline in prices, the actual gain to the teachers was greater than that expressed in terms of dollars alone. Total expenditures for the schools rose 48 per cent and those for capital outlay were 30 per cent greater in 1899 than in 1891. Meantime the valuation of taxable property had increased 28 per cent and the total taxes assessed thereon had increased 40 per cent.

This increase in property values in Massachusetts was quite different from the situation in many other states. In Oregon, for example, the valuation fell 20 per cent during these years and in California it dropped about 4 per cent. Other evidences of the regard which the people of Massachusetts had for public education are found in the legislative developments of the period. Establish-

ment of four new normal schools was authorized in 1894 and towns not maintaining high schools were required to pay the fees for tuition for their pupils to other towns. Requirements for admission to the various training schools were also raised.

The statistics on school finance for forty-one states show that there was an average increase of 35 per cent in the total amount expended for the public schools from 1891 to 1899. Because of the rapid gains in enrollment the expenditures per pupil showed a gain of 6 per cent in current dollars for the period, although in 1896 they were 5 per cent lower than in 1891. On a basis of buying power, however, they were 14 per cent higher in 1896 than in 1891 and remained at that level until the close of the century.

Salary Levels Were Steady

Teachers' salaries tended to increase slightly during the period, those of men averaging 2.4 per cent higher and those of women 3.8 per cent higher in 1899 than in 1891 in the twenty-four states for which information was found. Only four of the states had a percentage decline in men teachers' salaries greater than the drop in prices, so that on the whole the teachers gained perceptibly. Moreover, the lengthening of school terms tended to make larger increases in the total annual salaries than the monthly rates would indicate, in addition to the fact that the apparent reductions were often the result of lower salaries to new teachers. The declines in the men's averages seem to be particularly affected in this way since there has usually been during depression periods a desire on the part of many men to secure places in the schools, while economic storms made their tenure and rewards most uncertain in the business world.

It has been noted that the valuation of taxable property in Oregon was 21 per cent less in 1899 than in 1891 but despite that evidence of falling land values the total expenses for the public schools gained 45 per cent. The records of many other states showed the same tendency for school moneys to increase much faster than the taxable wealth and faster than taxes for other purposes of government during the critical years. This willingness on the part of American citizens to increase their financial support of the public schools more rapidly than their wealth increased indicates an implicit faith in the power of education to improve the condition of society.

In the field of legislation there were also many evidences of this faith in education. Among the laws enacted were those relating to provisions for improvement of teacher training, compulsory school attendance, free textbooks, child labor, equalization of the school tax burden, enlargement of the units of support and the teaching of vocational subjects in the schools.

Connecticut required illiterates between fourteen and sixteen years of age to attend night schools. Arkansas demanded the establishment of a normal school in every county in the name of economy. Maine abolished the old one-school district system. Minnesota joined the list of states that provided free textbooks in the schools. Montana opened its university in 1895. Nebraska provided for free high school education.

New Jersey went through a thorough reorganization of its school system in 1894 by passing no less than twenty-one bills relating to education. These included one abolishing the small school districts in favor of the township system, a free textbook law and reorganization of the state board of education. According to the report for the year, "no legislature for a quarter of a century" had "done more to uplift the schools of the state and place them upon a basis of permanent growth and efficiency."

New York put a new compulsory education law into effect in 1894 and the following year placed the minimum length of the high school course at three years and required teachers to be at least eighteen years of age. Ohio improved its compulsory education law, gave women the right to vote and to serve as public school officials and permitted the furnishing of free textbooks.

Pennsylvania and Vermont also passed free textbook laws during the decade. Vermont also made provision for educating the pupils in town high schools, appropriated state money for training teachers at summer schools and tried to relieve the burden of the school tax in small communities by levying a state school tax, the proceeds from which were distributed to the towns according to the number of schools maintained.

Two Distinct Tendencies

Wisconsin legislated for the establishment of free public libraries in the state, for manual training departments in the high schools and county schools for training teachers for service in the one-room schools. Reactionary legislation was enacted in some states, for example in North Carolina, where the county boards of education and the county superintendencies were abolished in 1895. On the whole, however, as the above samples indicate, it was a period of progress in public school support.

The brief depression periods of 1907-08 and 1920-21 have also been characterized by movements for extension of the public schools. The financial situation of the times actually seems to have stimulated legislators and educators to action

TRADE SCHOOL LIBRARY

for the report of the commissioner of education for 1908 stated that "a large bulk of the legislation of the year is made up of measures calculated to increase the support of the public schools."

The "Biennial Survey of Education" for 1922-24 contained these words by Katherine M. Cook: "Two distinct tendencies are apparent, the first toward increasing school revenues from new and old state sources; the second toward better methods in the distribution of state funds designed primarily to equalize tax burdens and educational opportunity. . . ." An examination of the legislation bears out these conclusions. Other achievements of the period were the Educational Finance Inquiry and the various studies in measuring educational need and equalizing opportunity.

Salary Gains Outweigh Losses

We have looked "at the record," as Al Smith would say. From it these conclusions seem to stand out. During past periods of economic depression the American states have made substantial increases in their total expenditures for public schools. These expenditures have usually more than kept pace with the increases in school attendance although in some of the longest depressions there have been slight declines in the expenditures per pupil. These declines, however, have been more than offset by a decline in the level of commodity prices. Thus even on a per pupil basis the people have expended much more actual buying power at the close of periods of depression than at the close of the preceding periods of prosperity. Furthermore, these increased revenues had to be supplied in many cases by a public that had suffered tremendously in income and by marked shrinkages in the valuations of its taxable property.

Many states increased their teachers' salaries even in the most severe depressions, it was found. Other states reduced theirs materially, but when the gains and losses are compared and the gains from lower commodity prices added, the gains tended to outweigh the losses. Because it has been possible to secure the services of competent persons at lower salaries during periods of unemployment in business, the schools probably have suffered much less than the declines in salaries for some years might suggest.

The tendency for school attendance during depression periods to increase much faster than the population of school age has been mentioned for several states. This tendency has, of course, resulted in placing a greater load on the schools when times were the hardest and has caused the per pupil costs to lag behind the total costs.

There has also been a tendency for the number of school days in the year to be greatly increased, as well as a marked tendency for legislation affecting child labor to be enacted. It seems almost as though the child became an object of tender solicitude when he was a serious competitor with adults for employment. In former crises the schools have been used as direct agents in correcting existing evils. Such action must have been the result of a profound faith in education.

Some of the most noteworthy among the numerous laws affecting public education enacted during these depressions have been those relating to financial support. In the period following the panic of 1837 the first steps taken toward state financial responsibility for the education of all and the principles of equalization of educational opportunity and state control were laid down. As we read of the attempts made during the succeeding periods of falling incomes to carry out those principles in the effort to provide the kind of school that was a part of the American dream, we can see a tendency toward enlarging the unit of support. New sources of revenue have been sought and found during these years and methods of more equitably distributing the funds so derived have been tried.

Other developments have related to the upward extension of the public school, such as the establishment of high schools and state universities. The curriculum has been widened, school libraries have been provided and textbooks made free; provision has been made for the education of the physically and mentally handicapped; entire state systems of schools have been reorganized, and attempts have been made to improve the administration and supervision of the schools.

Much Remains to Be Done

There are persons who say that the course of events during the present crisis must be different because the American school system is no longer in the beginning stages but is practically complete from the elementary school through the high school and because the tax burdens are already so great as to bring into existence a National Economy League. It should also be said that there are fields for operation that make the present situation quite comparable with those of previous depressions. The opportunities and needs in adult education, in the junior college, and in revamping of the curriculum in all the schools are almost limitless. For those who are interested in finance the unsolved problems in taxation are numerous and challenging. If educators fail to make significant progress during the years that lie immediately ahead of us, it will not be because they lack precedent or fields in which to labor.

Editorials

Let the Facts Speak

FOR several years we have been regaled with rather continuous attacks on the public education budgets on the grounds of "extravagance," "wanton spending and waste," "drunken fiscal negligence" and useless "frills and fads."

These attacks expressed from platform and through many of our newspapers have struck, without showing any favoritism, at the entire system of education from the preprimary schools through the universities. The charges have been general and have been built on misconceptions arising from ignorance. Their orderly analysis may be of value. In general these attacks may be classified as follows:

Attacks against the curriculum because more than the three R's are taught. Even the present adult generation received more than such stripped elementary instruction when they went to school. Curricular changes are necessitated by changes in the social order. Present curricular expansion started in the 'sixties. So far the United States public school has slowly followed rather than led social change. The school is not responsible for social change. As a social institution it must respond to it.

Attacks against the salaries paid teachers. Statistical analysis indicates that the teaching profession as a whole is the most poorly paid of the professions. The total number of teachers required is determined by the number of children to be educated. Certainly this expansion is beyond the control of the schools.

Attacks against supervision, made in many instances by industrialists and business men who in their own work estimate one "straw boss" to five workers. Supervision is not "straw bossing" in any sense, but is rather the intelligent organization and direction of large numbers of teachers so that instruction may be made increasingly more effective. Any comparison of facts will indicate that the schools as a whole are undersupervised rather than oversupervised.

Attacks against buildings as "marble palaces" and "country clubs." With a few rare exceptions the public school buildings are not built on the monumental style of modern city halls, courthouses, post offices and even jails or prisons. Schools are expected to endure for fifty years. Their constructional quality must be good. Even in this instance the mandatory legal quality inherent in the building was determined by building and trade influences outside of the will of the board of education and the superintendent of schools. As a rule a community builds one jail but builds scores of school plants.

Attacks against health and recreation—two of the most vital needs under present day social conditions and our manner of living. These activities pay for themselves many times over by making it possible for many individuals to live successfully in our high tension social environment.

Attacks against the cost of special education. The spending of twice as much money on the training of the handicapped for effective living within the community rather than on their expensive institutional care is the cheapest way out of a difficult situation. There are only two paths. Either educate them intelligently in accordance with their ability to achieve or support them for life in institutions.

If we take all of these attacks and consider them in light of the social needs, the unbiased observer must quickly reach the conclusion that not only is the general charge of extravagance unwarranted but that serious charges might be made that the public schools are performing their task on too inadequate a basis. Upon the whole we believe that the money spent in public education represents a valuable type of expenditure.

If this is true why should the schools be burdened with all of these attacks and abuse? Why does the public stand idly by and watch the scrapping of its seven billion dollar physical plant? The answer is relatively simple. The professional organization has not realized its social responsibility to keep the people informed of the purpose of the schools, their vital needs and the manner in which these needs are being satisfied. As a result the agitator, the critic and the public see education only as an activity requiring large total expenditures approximating one-third of the entire local tax dollar. It has no immediate means of translating these large sums of money into service because little or no effort has been made to connect expenditure and service in the popular mind. It is questionable whether much forward progress can be made until such coupling is made.

We believe that the remedy lies within the grasp of the professional organization. Powerful public opinion can be created if the people are supplied with the essential facts. Since control of the schools in the interests of the children is one of the few real powers still in the hands of the populace, the effect of a unified dynamic public opinion will soon make itself felt.

A Credit to Wisconsin

THE efforts of the Wisconsin Teachers Association, through its teacher training council, to give professional leadership through the formulation of a philosophy of education for Wisconsin, deserve sincere praise. It points the way to similar activities by other state associations. The philosophy as expressed to the teachers presents ideas which if put into practice should be helpful to the development of a more effective modern school system.

One of the sections deals sanely with the treatment of controversial questions. It maintains that "the principle of free inquiry is often in conflict with the personal interests of individuals and groups. The problem of how far the school may go in the study and discussion of controversial questions is a difficult one. Personal beliefs must be respected but on the other hand we can find the best solution of our difficult political, social and economic problems only through intensive study and discussion of them. Partisanship has no place in the school but opportunity for free inquiry must be protected."

American Educational Principles

UNDER the stress of the depression, proposals are being made which involve fundamental revisions of the philosophy upon which our public school system has been developed. At such a time it is well to have clearly in mind the principles peculiar to the American system of education. Let us enumerate them.

First, the American public school is a common school for all the people.

Most countries have two school systems. One educates those who are to rule, the other those who are to be ruled. The "high born" are given a complete education. The "low born" are provided a brief elementary training.

America has one system of schools planned to meet the needs of all the children of all the people. Even if it is not realized everywhere in practice, we accept the ideal that what the best and wisest parent wants for his own child, that must the community want for all its children. Any other ideal for our schools is narrow and unlovely, acted upon, it destroys our democracy. The working out of this ideal, for which several generations have struggled, is tangible evidence of the realization of the American dream. Are we ready to give up this principle? Does our present economic plight justify the setting up of two school systems—one meager system for the children of the poor and another more adequate system for the children of the wealthy?

A second fundamental principle of our philosophy of education is that the American school is free and open to all. This is an ideal of relatively recent origin. A century ago it was practically impossible for the pupil who could not pay tuition to obtain a first rate education. Children attending free schools were stigmatized as "paupers." Records of legislatures, patriotic societies and labor organizations of only a few generations ago are replete with protests against discriminatory conditions in education. The following resolution of the Workingmen's Party of Philadelphia in 1830 is typical:

"Resolved, that the time has arrived when it becomes the paramount duty of every friend to the happiness and freedom of man to promote a system of education that shall embrace equally all the children of the state of every rank and condition."

The battle for such a system of education was won as the result of an organized demand by the masses of the people. Are we willing to give up this hard won victory? Are we so strapped financially that we must say to the youths in our high schools and colleges: "While few of you can find employment at this time if you leave school, nevertheless only those of you who are able to pay tuition may remain."

A third underlying principle in our educational system is that every man's wealth shall bear its just share of the cost of educating all children. This principle was established only after a long fought battle as to whether schools should be supported by subscription or taxation. Advocates of the support of schools through taxation, such as Henry Barnard, were not only bitterly assailed, but were threatened with personal violence. Today we recognize the principle that the education of the future generation should constitute a first lien against all wealth. Shall we cast this principle aside, or shall we revise our obsolete system of taxation so that it may operate even in a period of depression? The latter course is necessary if we are to prevent the return of the "pauper" school.

A fourth principle underlying our philosophy of education is that the American school offers a complete education from the kindergarten through the university. Industry and purpose, not caste, whether economic or intellectual, are the keys which open the doors to a complete education. This ideal has only recently been achieved. Arguments against free high schools were successfully met but a generation ago. Free college education is almost wholly a development of the twentieth century. These higher levels of education came in because our culture had developed to a place where

free secondary and free higher education were essential if the ideal of equality of educational opportunity was to continue to have real meaning. Shall we permit the depression to rob the people of these hard earned victories? Or shall we recognize that the maintenance of the principle of equality of educational opportunity in the twentieth century requires that we continue to provide both secondary and higher education at public expense?

A fifth fundamental principle in our system of free education places the schools under the control of all the people. To exercise that control the people have created boards of education and school committees which owe their existence to no group whether of wealth, religion or political party. They are answerable only to the whole people. Shall we surrender this control to so-called citizens' committees? Shall we permit the "money changers" to tell our schools what educational facilities they shall offer, what length of terms they shall maintain, and how much they shall spend? Or shall we insist that these are functions that only the legally constituted representatives of the people have a right to exercise? Here is a fundamental issue. If these questions had been settled by the "money changers" of the nineteenth century we should have had no free public school system in that century. We shall soon have none in the twentieth century if school boards allow their prerogatives to be usurped by any self-appointed minority group.—*John K. Norton.*

A Bright Ray

EDUCATIONAL determinism received another sharp blow from Dr. Franz Boaz in his speech as the retiring president of the American Association for the Advancement of Science.

For those who fondly believe in the immutability of human nature he had small comfort. Most of the behavior patterns considered as founded deep in human nature are apparently little more than expressions of the prevailing life and thought about them. They are subject to modification with significant changes in culture. His advocacy of the study of man from the biologic, psychologic and cultural aspects, to secure a balanced and rational view of this domesticated animal, bears out the views of our philosophers and sociologists who have urged in the past decade a broader base for the study of educational problems.

To those who believe that social regeneration must come about through consistent education, the mature opinions of this outstanding American anthropologist should be extremely comforting.

A Mistaken View of Activities

PRESENT economic conditions explain the strenuous efforts everywhere being made to reduce school costs. In these times any movement that promises to cut off overlapping or unnecessary activities, remove inefficient or costly service or prevent extravagance merits the attention of every intelligent and patriotic citizen. Under present circumstances it is but natural that the item of school books, although it constitutes little more than a hundredth part of our school bill, should come in for its share of scrutiny and should sometimes be curtailed beyond the margin of safety.

Serious as such curtailment may be, it is far worse to justify it by assuming that textbooks, supplementary reading materials and school libraries are no longer needed in our modern curriculum. Such a position, however, has been taken by some boards of education and even by some school superintendents. Such great advancement has been made during the past dozen years in supplementing formal knowledge with activities and in substituting problems for assignments in memorizing second-hand information, that books have at times seemed to be synonymous with conservatism, while syllabuses, projects and construction have come to be regarded as the only symbols of progress.

We are likely to forget that in the newer education we are still dependent upon textbooks and libraries for much of the material used in educational processes. As a matter of fact, one striking change that has occurred is the replacement of a single text by a number of textbooks and by wider use of the school library. If modern education is to meet with success, the classroom and the library must be laboratories in which many books will be used continuously.

The activities program has been adopted in many places simply because it is the latest fashion, and it is being conducted with a dearth of books and other pertinent material. In these communities the value of the procedure is largely lost and there is danger of turning the whole enterprise into a farce. Such misinterpretation of the spirit of a progressive program has always given substance to the cry of "fads and frills."

Evidently the claim of modernism as an argument for curtailing expenditures for textbooks, essential reading matter and school libraries cannot stand. By all means let us economize wherever we may without serious injury to the school program, and if in our efforts to balance the budget we overshoot the mark, let us at least not lay the blame at the door of our present day curriculum. We cannot afford to make such a virtue of necessity.—*Frank Pierrepont Graves.*

Happy to Say— By WILLIAM McANDREW

JUNE is open season for killing school executives. I have, myself, been officially killed four times. Let me tell you something. Losing an enjoyable position, facing the mortification of being considered a failure, dropping to an inferior place, seeing the necessity of starting over again—these things, depressing as they seem to be, have opportunities not found in what is commonly called success. If you don't utter a whine, if you resolve not to lose your nerve or to impair your inner integrity, you'll come through with an unexpected addition to the most valuable essence of the best of life. Too much security makes a fathead. Dismissal puts you into a class honored by the best who ever lived.

IF YOU don't, by talk, give an opposite slant, a large number of people will assume that you are fortunate, happy and successful. Most people are considered richer than they are. You help nothing by lowering your own reputation.

IF I could blot out of my life all of the folks that caused me trouble, I wouldn't. Many of them furnished amusement and all have taught me how volatile are the fluids that burn.

DESPAIR is often confined to the first moments of discouragement. During this paralysis, power is usually collecting. Count on it.

IN THAT earth of which you are made are almost ineradicable seeds of noxious plants like envy, hatred, laziness and greed. But also there are generosity, industry, loyalty and a hundred roots of excellencies. Every Adam is given this garden to dress it and to keep it. You need never fear the loss of this profitable employment. A garden neglected is a mess.

AS I see it the school man's life gives him the call to a mastery of three things integrated into one exhilarating adventure. These are: doing his job in a big way, economizing time and disciplining himself. The mastery of each is a fascinating game. Each aspect of it calls for forthright planning as definite as the layout of a military campaign or the detailed design of a cathedral. The school executive who does not work out, beforehand, and perfectly, day by day, a written prospectus is no better than the clerk in the country store who thinks of things only as they come up. The superintendent who goes to his office without a preorganized day is a wastrel. Time eaters will squander his hours. The educator who does not indenture himself to the larger obligations, who, himself, does the work he should deputize to others, is a cheapskate, putting dollar time on thirty-cent tasks. Let a man set for himself strenuous working hours and ample rest and recreation. Let him, by accurate accounting, hold himself to these. It is the way of those who make life full of zest.

THOSE whose business it is to teach others have their pupils but a short time. However, there is one pupil whom you have with you always, to teach whom is a never failing source of interest and profit. As you can't get quit of him, you'd better train him to be worth living with.

HAPPINESS—who can tell what will bring it? There was a cabinetmaker in our town known as Happy Henry. "What's your recipe?" I asked him. "I ain't got no recipe, but my shop juts over the river and I don't have to use no dustpan, just sweep through a hole in the floor. Every time I clean up that shop it makes me happy. I clean it up every night. If I feel blue, I clean up the shop." This is a tip for you before starting on vacation.

I HAVE seen not a few men and women serenely and continuously happy without chasing pleasure. But they were not idle or selfish. They worked.

DESPONDENCY never attacks a person who is busy at something worth while.

ONE advantage of a great sorrow is that it drives away a multitude of petty annoyances.

NEVER say: "I made a fool of myself" but "I've taught myself a lesson."

ONE thing those awful Russians have done is to get millions working for an idea bigger than personal profits. We have had teachers doing this for years.

Radical Program Changes Planned by Department of Superintendence

By

PAUL C. STETSON

Superintendent of Schools, Indianapolis, and President, Department of Superintendence

THE executive committee of the Department of Superintendence of the N. E. A., in addition to selecting Cleveland as the convention city for 1934, made two important decisions which it is hoped will result in enabling the department to render "year-round" service to its members.

The first decision was to continue the joint commission on the emergency in education. The emergency commission has a program which through varied types of publicity will reach every section of the country. The second decision was the approval of the recommendation of the president that the pattern of the 1934 discussion programs be changed radically. It has been many years since the pattern of these discussion groups has been altered. Any veteran convention delegate can tell the general outline of these meetings without a program. The result of this standardization has been the loss of one of the most important factors, that of the active participation of all the members in discussions and in determining policies.

The New Set-Up

A study has recently been completed of the early programs of the Department of Superintendence. In those days set speeches were of secondary importance and the discussions of various topics were of primary importance. The delegates only listened to addresses in those early days if there was time to do so. Now there are discussions if there happens to be time for them. Of late years there has seldom been time for discussions by the members on any program.

The organization set-up for the discussion groups next year, in general, is as follows:

Seven general subject committees of twenty-five or more members each have been appointed. The chairman of each general subject committee will in turn select from the twenty-five members of his committee a chairman and a secretary of ten subcommittees who will consider some phase of the general subject. Each subcommittee consists of forty members. Thus, in an ideal situation, 2,800 members of general and subcommittees will participate in the meetings of these committees which will be held on Tuesday and Wednesday afternoons of the convention week. Thursday of that week will be devoted to the reports of the seven general committees. These general committees have been appointed. A representative of the National Education Association has made arrangements to call upon each chairman to discuss with him the assignment of members of his subcommittees and the topics upon which they will work. The subcommittees will be appointed soon.

Thus almost a year before the new convention these general committees are beginning a study of seven important problems. When the convention day arrives a vast body of material will have been collected out of which the report of the chairmen will be formulated. Thus the whole membership, theoretically at least, will be at work for almost a year on some phase of educational problems. The seven general subject committees and the chairmen and secretaries who have accepted are as follows:

Group 1, "Is Our Present System of Public Education Justifiable?" *Group 2,* "A New Educational America," Willard E. Givens, Oakland, Calif., chairman, Merle Prunty, Tulsa, Okla., secretary; *Group 3,* "Can We Afford Our Program of Public Education?" *Group 4,* "The Future of Public Education," Leslie Butler, Grand Rapids, Mich., chairman, J. W. Sexton, Lansing, Mich., secretary; *Group 5,* "Financing of Public Education," Frank Ballou, Washington, D. C., chairman, A. B. Hall, Brookings Institute, Washington, D. C., secretary; *Group 6,* "Interpreting the Schools to the Public," Frank A. Jensen, Rockford, Ill., chairman, Arthur B. Moehlman, University of Michigan, secretary; *Group 7,* "A National Outlook on Education," John K. Norton, Teachers College, Columbia University, chairman, Paul Loser, Trenton, N. J., secretary.

The Aims of the New Plan

In addition to the work of these general subject committees there will be general meetings of the convention Monday all day and Tuesday and Wednesday mornings and evenings. The topics for the general day sessions will be the same as those assigned to the general subject committees. In this way a thoroughly integrated meeting will be possible. This new plan involves countless details which are being handled with dispatch in the secretary's office in Washington.

Our aims are the active participation of all members in the solution of important problems, to help the department to be an organization that functions, vitally, the entire year, and to make the meeting a working conference as well as a convention.

The New Commissioner of Education

THE announcement by President Franklin D. Roosevelt of Dr. George Frederick Zook's appointment as U. S. commissioner of education to succeed Dr. William John Cooper, who resigned to accept a professorship at George Washington University, has been received with enthusiasm by educators throughout the country. It has stilled the fears of many leaders that this office was to be made a political plum. It has immeasurably increased the confidence of the professional field in the national administration and is an indication of the attitude of the President and his advisers to the importance of selecting capable leadership for this important office. Since the commissionership of education does not carry with it any great amount of actual power, its prestige and leadership are determined by the caliber of the incumbent.

Dr. George Frederick Zook.

Doctor Zook brings to this office a wealth of practical experience and achievements of outstanding merit. He is progressive in his viewpoint, fair and objective in dealing with concrete situations and with people, and possesses real vision of the possibilities of the office. He is not a newcomer to the office of education since he was federal director of the division of higher education from 1920 to 1925. In 1918 and 1919 he was associate director of educational instruction of the savings division of the United States Treasury.

Born in Kansas in 1885, Doctor Zook received his education in the Kansas public schools, graduating from the University of Kansas in 1906. He received his master's degree from the same institution in 1907 and later went to Cornell University, where he completed his doctorate in 1914. He was instructor in modern European history at Cornell and also at Pennsylvania State College. In this institution he was appointed to a professorship in 1916, leaving in 1919 to assist in certain educational phases of war work at Washington. After the armistice he became associated with the Office of Education until he was appointed president of Akron University in 1925, a position he has held since that time.

Since 1925 he has also been associated with numerous surveys of higher education in different sections of the country, notably in New Jersey and, most recently, in California. He has traveled extensively and is familiar with educational needs in different sections of the United States. His return to the federal office of education, with his rich background of experience and achievement, is a climax to a long and successful career.

Doctor Cooper will complete his federal duties on July 1 and will direct a series of educational conferences at George Washington University during the summer session. He will assume his professorship in the fall.

As commissioner of education, Doctor Cooper developed new work in the office of education including work in tests and measurements, in special problems of handicapped children, in radio education, Western European education and Negro education. Three national surveys of education of importance were carried on under his direction, one in the field of secondary education, one in school finance and one in teacher training problems.

Doctor Cooper will teach and direct the curriculum in educational administration at George Washington University. This is a field in which he has acquired national reputation because of his wide experience in different phases of educational administration, first as city superintendent of schools at Piedmont, Fresno and San Diego, Calif., then as state commissioner of education for California, during which time he directed the teacher education in seven teachers' colleges of the state. He was also an ex officio member of the board of regents of the University of California.

Summer Work for School Janitors

Summer is the time to prepare the school buildings and grounds for the fall opening, but the work must be done systematically for the best results. Nearly 150 summer tasks for janitors are listed here

By ARVID J. BURKE, Principal, Schuylerville School, Schuylerville, N. Y.

THE appearance of school buildings and grounds on the first day of school has considerable effect upon their appearance during the entire school year. An initial appearance of neatness, cleanliness and good repair usually can be maintained with little effort, because it makes those who use the buildings neat and careful themselves. An appearance of carelessness and poor repair on the opening day, on the other hand, is difficult to correct, because it seems to encourage the occupants' carelessness.

The janitorial force, therefore, should have the buildings and grounds neat, clean and in good repair before school opens in the fall.

The accompanying check list of janitors' duties was made in the following manner: First, the duties of the janitorial force were listed as found by analyzing (1) a diary kept over a period of three years, (2) school board minutes, (3) research studies, (4) selected educational literature, (5) suggestions from other schools and (6) suggestions from specialists in school administration. Then, those duties that should be performed before a school is ready to be opened in the fall were classified under four headings (1) upkeep or repair, (2) cleaning or sanitation, (3) handling supplies, equipment or furniture and (4) heating, ventilating or lighting. Finally these four were subclassified under the following headings: (1) duties that might be performed at any time before school opens, (2) duties that should be performed before cleaning is begun, (3) preliminary cleaning, (4) things that should be done after preliminary cleaning, (5) final cleaning immediately before the opening day and (6) other things that should be done immediately before opening.

The check list so classified follows.

Maintenance and Repairs

Things which may be done at any time before the opening of school: repair broken shades; repair broken furniture; repair auditorium chairs; repair lockers; replace electric light bulbs; make improvements and changes on the grounds; oil the mechanical equipment; repair the roof; plant shrubbery and trees and plant grass seed on bare spots; plant sod and fill holes on the grounds; take care of the trees; oil and paint the playground apparatus; repair the playground apparatus; trim the shrubbery and the edges of walks; repair leaky faucets; repair squeaky doors; repair broken locks; fix loosened desks; paint wooden parts (out-of-doors especially); remove weak parts in playground apparatus; detect things which might cause accidents, and repair other equipment.

Things which should be done before preliminary cleaning: repair holes in the floors; have blackboards reground as directed; replace broken window panes; have plumbing fixtures repaired; putty the windows; repair cracks in the walls, and help see that carpenter work is done as directed.

The Preliminary Cleaning

Things which should be done after the preliminary cleaning: help with the painting; have painting done as directed; have furniture varnished as directed, and have toilets painted.

Things which should be done just before the opening of schools: inspect the fire apparatus; put tools in order; fill and paint the fire extinguishers; test the fire alarm; check the batteries on the electric clocks, and check the bells and change them if necessary.

The preliminary cleaning should cover the following points: help determine standards for sweeping, treating floors, removing stains, disinfecting, washing windows, dusting, scrubbing, caring for grounds, etc.; remove rubbish, waste and obsolete materials from all rooms; clean lockers and remove old clothing and other leftovers; remove obsolete materials from storerooms and cellars; dispose of rubbage and papers; remove grates from ventilators and clean with a vacuum cleaner; remove and clean dirty erasers; remove chalk trays and clean with vacuum cleaner; clean ventilating ducts with vacuum cleaner; clean area ways with a vacuum cleaner; detect bad odors and remove the cause; remove rugs and clean with a

vacuum cleaner; clean behind radiators with a vacuum cleaner; clean behind and under all furniture and equipment with a vacuum cleaner; clean closets and cloakrooms with a vacuum cleaner; clean behind moldings and pictures with a vacuum cleaner; clean the shades with a vacuum; remove cobwebs; remove ink stains and gum; wash walls, ceilings and electric light fixtures and remove all marks; remove furniture and equipment from each room; scrub the floors; wax or oil the floors; dust furniture and equipment and put it back in the room; sweep, scrub and disinfect the shower rooms; sweep, dust, scrub and disinfect the toilets; sweep, scrub, sand and treat the gymnasium floor; clean the flues with a vacuum cleaner; dust, sweep and scrub the boiler room; dust, sweep and scrub the cellar or basement; remove and clean the door mats; sweep, dust, and scrub the halls and stairways; keep the grounds clean; keep the walks and steps swept; keep the lawns mowed and trimmed; remove broken glass from the grounds; rake the roads and walks; keep the athletic field clean and the grass mowed; sweep and clean the roof, and clean the parking place.

The Final Cleaning

The final cleaning immediately before opening should cover these points: see that each room is ready for work; wash all windows inside and out; wash the glass in the doors; wash the electric light fixtures again if necessary; sweep and dust each room—furniture, equipment, molding, pictures, closets, etc.; open the windows while cleaning; do not use a sweeping compound on the wax; clean and fill the ink wells; polish all metal work; see that there are no cobwebs; see that each toilet is in order; clean the wash bowls; clean the toilet seats; clean the urinals; sweep and dust carefully; see that the corridors and stairways are in order; clean the drinking fountains; clean the door mats; clean the halls and stairways; clean and dust the railings; polish the metal work; see that the storerooms, boiler rooms, basement, cellar, and shower rooms are in order; see that the grounds are in order; rake and mow the lawn; trim the shrubbery and walks; rake the walks and roadways; sweep the walks and steps; remove any marks on the buildings or walls; clean the parking place; clean the playground or athletic field; make a thorough inspection of the building and grounds; make sure the building and grounds are thoroughly clean for the first day of school, and clean and put away all tools (treat the mops).

The following may be done at any time before the opening of school: change seats in rooms and arrange furniture as directed; unpack books, furniture, equipment and supplies; deliver books, furniture, equipment and supplies to the clerk; report breakage in shipments to the clerk; help assemble equipment; make request for supplies for the year; store janitors' supplies or get supplies from the storeroom; help select the janitors' supplies; make requisition for supplies and equipment; help determine the type of floor brush to use; help select the disinfectant and liquid soap; distribute clean erasers; keep sweeping compound in fireproof place; make ink, and deliver supplies and equipment as directed.

These things should be done immediately before the opening of school: set the time clocks; put safety appliances in place; set playground equipment in place; place sanitary napkins in the machine; place towels and toilet paper in vendors; fill liquid soap containers, and reorganize the furniture after cleaning.

The following tasks may be done any time before the opening of school: place a thermometer in each room; split and pile the kindling wood; remove soot; wash out the inside of the boilers; store the coal in indestructible bins; direct the unloading of the coal, and oil the ventilators.

The following should be done immediately before the opening of school: put the heating system in order; put the ventilators in order; see that all lights are in order; air the rooms, and turn on the ventilating system.

Nursery School Rise Seen as a Good Sign

A rapidly increasing demand for teachers who understand parent problems and who have more knowledge of child development preceding school experience is resulting in a greater interest in nusery schools throughout the United States, according to a recent U. S. Office of Education bulletin. "The preschool years are being recognized as of more developmental importance than any succeeding period of life," says Dr. Mary Dabney Davis, specialist in nursery-kindergarten-primary education, author of the bulletin.

More than half of the nursery schools in the country are now sponsored by or served in some way by colleges and universities for which they act as laboratories in the preparation of teachers, and for research in the field of child development.

Serving parents, public health and social welfare workers, student teachers and research workers in such fields as nutrition, psychology, medicine and sociology, nursery schools are found in 121 cities of thirty-five states, the District of Columbia and Hawaii. More than three-fourths of the schools have been organized since 1925.

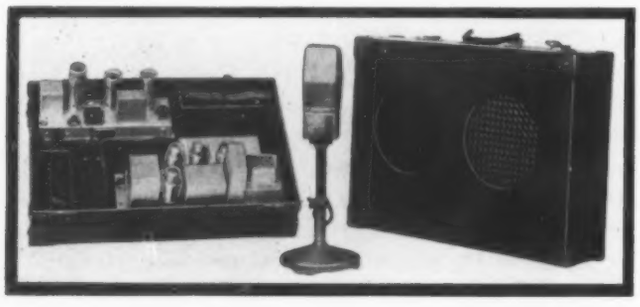
Your School—
Its Construction and Equipment

A Department Conducted by CHESTER HART, B.Arch., Chicago

Portable Public Address System Has Many Uses

The value of a lecture, speech or musical performance is in direct proportion to the ease with which the pupils can hear. In large rooms or out-of-doors it is difficult for the human voice to carry with sufficient distinctness to maintain attention unless natural volume is amplified.

The portable public address system amplifies volume, and the apparatus may be carried easily from one location to another. This portability is an advantage when there are several large rooms in the school building; for example, the athletic director may deliver an address in the gymnasium or on the athletic field, and later the same machine may be used by a lecturer in the auditorium. The



portable type might also be used in a small, closely linked school system where the apparatus could be moved from one building to another on a regular schedule, or be transferred upon notification of need.

The portable public address system recently developed by the RCA Victor Co., Inc., Camden, N. J., model PG62, consists of a velocity microphone, an amplifier and two loudspeakers compactly housed in a carrying case 25 inches long, 18½ inches high, 11 inches deep. The equipment, which weighs seventy-five pounds, may be set up and placed in operation in the space of a few minutes by any person. The system is entirely self-contained and only requires a single connection to an ordinary electric outlet carrying 110-volt alternating current. The controls have been designed so that operation is as simple as that of an ordinary radio receiving set.

The amplifier, which is located in one half of the case, is a five-stage, high-gain, 20-watt output unit employing class "B" amplification. The amplifier is mounted on two separate bases in order to reduce hum to a minimum by keeping the power supply separate from the voltage amplification stages. The amplifier has been primarily designed to amplify the output of a velocity type microphone or a phonograph unit, but may also be used for a carbon button microphone. Compensation has been provided to accentuate the reproduction of voice pickup alone, provided this is desired, or it can be cut out when reproducing straight music pickup. It is also possible to use voice pickup against a background of phonograph music.

All controls and switches required to operate the system are mounted on the amplifier units.

Two electrodynamic loudspeakers of the cone type are mounted behind two grilled openings in the front half of the carrying case. The loudspeaker units are mounted on a baffle at a slight angle in order to obtain maximum distribution. Thirty-foot rubber covered cables connect the microphone to the amplifier, and the amplifier to the loudspeaker, thus allowing a total distance of sixty feet between the microphone and the loudspeaker. These cables when not in use are coiled around hooks in the carrying case.

The velocity microphone uses a new principle of operation based on velocity actuation and a new type of construction in which no diaphragm is used. This type of operation gives favorable directional characteristics, high sensitivity and faithfulness of response, which imparts a naturalness of tone. The microphone is supplied with an adjustable desk stand.

A portable phonograph unit with either one or two turntables may be obtained for use with the public address system. By means of the two-speed turntable 10-inch or 12-inch records of either 33 1/3 or 78 revolutions per minute may be reproduced. With the double turntable it is possible to fade from one pickup to the other, which makes possible uninterrupted recorded programs.

Floor Machines for Use on Specific Areas

Four sizes of floor machines for scrubbing and wax polishing are included in the new "100 Series" made by Finnell System, Inc., Elkhart, Ind. The brush ring diameters are 11, 13, 15 and 18 inches, and these sizes govern the capacity and dimensions of all other parts of the machine.

Each scrubber has a motor of sufficient horse

power to give a brush ring speed of 230 revolutions per minute. The motor is offset from the brush housing to allow greater access under low objects, and a new flexibility of the machine permits operation in cramped areas. The wheels on all machines are rubber tired to be in accord with the improved quietness of operation. The water tank which is placed on the handle has a capacity of 1¾ gallons, and in the two larger sizes, a tank with 3½ gallons capacity placed on the machine is optional.

A selection from the four sizes of scrubbers will supply the proper equipment for definite school needs. For instance, in a great many schools there are permanently fixed desks in the classrooms, and the narrow space beneath these desks requires a brush not over twelve or thirteen inches in diameter for easy access to all parts of the floor. While the smaller sized brush is efficient for this specific location, it may not be large enough to clean the larger areas, such as the corridors, the library and the gymnasium with sufficient speed. A large and a small machine are indicated in a school where the square foot area of congested and open spaces is large. In a medium sized school the practicability and economy of two machines is doubtful, and yet both types of spaces must be cleaned. One machine with an auxiliary small brush may be used to meet this situation. The No. 118 machine which has an 18-inch diameter brush powered with a ¾-horse power motor will handle the scrubbing and wax polishing of large areas. This same machine may be equipped with a 13-inch diameter brush ring and guard, so that it may be used in congested areas. Thus the large machine with a small extra brush ring will enable a great many schools to meet their requirements with only one piece of equipment.

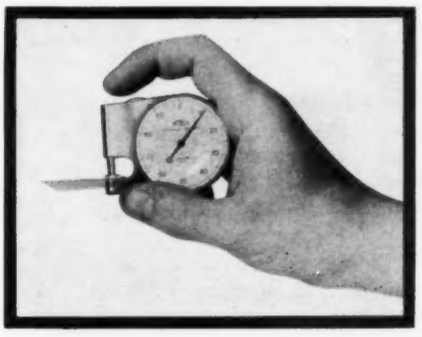
A Finnell-Kote Dispenser can be attached to the "100 Series" machines for waxing floors. The dispenser is used with wax having a high solid content. The wax is electrically heated until it liquifies, and is then fed to the floor in a threadlike stream just in front of the polishing brush.

New Instrument Ensures Accurate Thickness Measurements

A new thickness measuring instrument that eliminates the element of personal touch, and thereby gives the same readings for all users is being manufactured by the B. C. Ames Company, Waltham, Mass.

The instrument is small enough to fit in a man's vest pocket, the dial being about the size of a watch. The dial is covered with an unbreakable crystal, and the jaws project only a short distance beyond the dial.

The operating wheel at the top of the case can be turned with one finger in order to open the anvils and admit work to be measured. The anvils close with uniform spring tension when the oper-



ating wheel is released. The reading is made on the dial which is graduated in thousandths, and measurements in half-thousandths of an inch are plainly indicated. The number of graduations the pointer passes are counted and compared with a chart stamped on the back of the gauge in order to determine the nearest fractional equivalent.

The accuracy of the gauge is guaranteed within one-half-thousandth at any point.

NEWS OF THE MONTH

National Education Association Announces Tentative Plans for Annual Meeting

A convention program which invites the cooperation of the profession has been prepared for the seventy-first annual meeting of the National Education Association, which will be held in Chicago, July 1 to 7. Some of the high spots on the tentative general sessions program are as follows:

Allen D. Albert, assistant to the president, A Century of Progress, will address the gathering on Saturday, July 1. Walter Dill Scott, president, Northwestern University, and Walter Barnes, professor of teaching of English, New York University, will speak on Monday morning. Paul V. McNutt, governor of Indiana, and Glenn Frank, president, University of Wisconsin, are on the Monday evening program.

Francis G. Blair, state superintendent of public instruction, Springfield, Ill., and Charles H. Judd, dean, school of education, University of Chicago, are among those who will speak on Tuesday, July 4. Paul C. Stetson, superintendent of schools, Indianapolis, and president, Department of Superintendence, will address the meeting on Wednesday morning.

Joseph Rosier, Fairmont, W. Va., president of the association, will deliver his address on Wednesday evening. Numerous committee reports will be rendered on Thursday morning. On Thursday evening, Robert M. Hutchins, president, University of Chicago, will speak. The program for Friday morning provides for various committee reports as well as several interesting addresses.

Phi Delta Kappa Installs New Chapter

Phi Delta Kappa, national honorary educational fraternity, held installation ceremonies for Alpha Sigma chapter at the University of Denver on May 19. Twenty-five charter members were initiated.

At the dinner preceding the ceremonies, the aims, ideals, and practical aspects of the fraternity were discussed by Harlan C. Koch, district representative, and Allan R. Congdon, national treasurer.

Well known educators present at the installation were A. L. Threlkeld, superintendent of schools, Denver; Charles E. Greene, assistant superintendent of schools, Denver, Chancellor Frederick M. Hunter, Prof. Lawrence W. Miller and Prof. Ernest A. Zelliot, University of Denver.

Health Education Meet Will Be Held in June

The American Child Health Association is making arrangements for a health education conference, to be held at the University of Michigan, June 20 to 24. This will be the seventh of these conferences, the last having been held in Sayville, Long Island, N. Y., in 1930, in cooperation with some of the committees of the White House Conference on Child Health and Protection.

Dr. John M. Sundwall, director, division of hygiene and public health, University of Michigan, will serve as general chairman of the conference.

Publishers Upheld in Copyright Infringement

A permanent injunction, restraining the College Tutoring Bureau of Cambridge, which caters chiefly to Harvard University and Radcliffe College students, from printing, selling or distributing mimeographed versions of copyrighted publications, was ordered on May 24 by Federal Judge Elisha H. Brewster, who also assessed the bureau $1,000 for alleged infringement of the copyright laws.

The damages assessed by the court were awarded to the four publishing houses that instituted the proceedings —Houghton Mifflin Company, Ginn & Co., both of Boston, and the Macmillan Company and Harper & Brothers, both of New York City. The injunction and damages are directed against Joseph H. Hurvitz and Abraham Segel, doing business as the College Tutoring Bureau.

By the decree, Hurvitz and Segel are "perpetually enjoined and restrained from printing, reprinting, publishing, copying, distributing, selling or exposing for sale any copies of any said copyrighted books or any other book or work pirated or copied therefrom or any parts of said copyrighted books or quotations therefrom or any other version or abridgement thereof."

"Bond Burning" Marks End of School District's Indebtedness

The Bessemer Township School District, Gogebic County, Mich., staged a "bond burning" celebration recently to commemorate the paying off of a bond issue which financed an extended building program begun about fifteen years ago.

Fifteen years ago there were seven schools in the district, three of them being one-room buildings. There were 800 pupils and twenty teachers employed. Due to postwar developments the number of pupils was suddenly increased to almost 1,500. The school district was forced to extend its facilities and between 1919 and 1929 a number of new buildings and additions were constructed. Part of this work was paid for by means of accumulated surplus, part by direct taxation and part by bond issues.

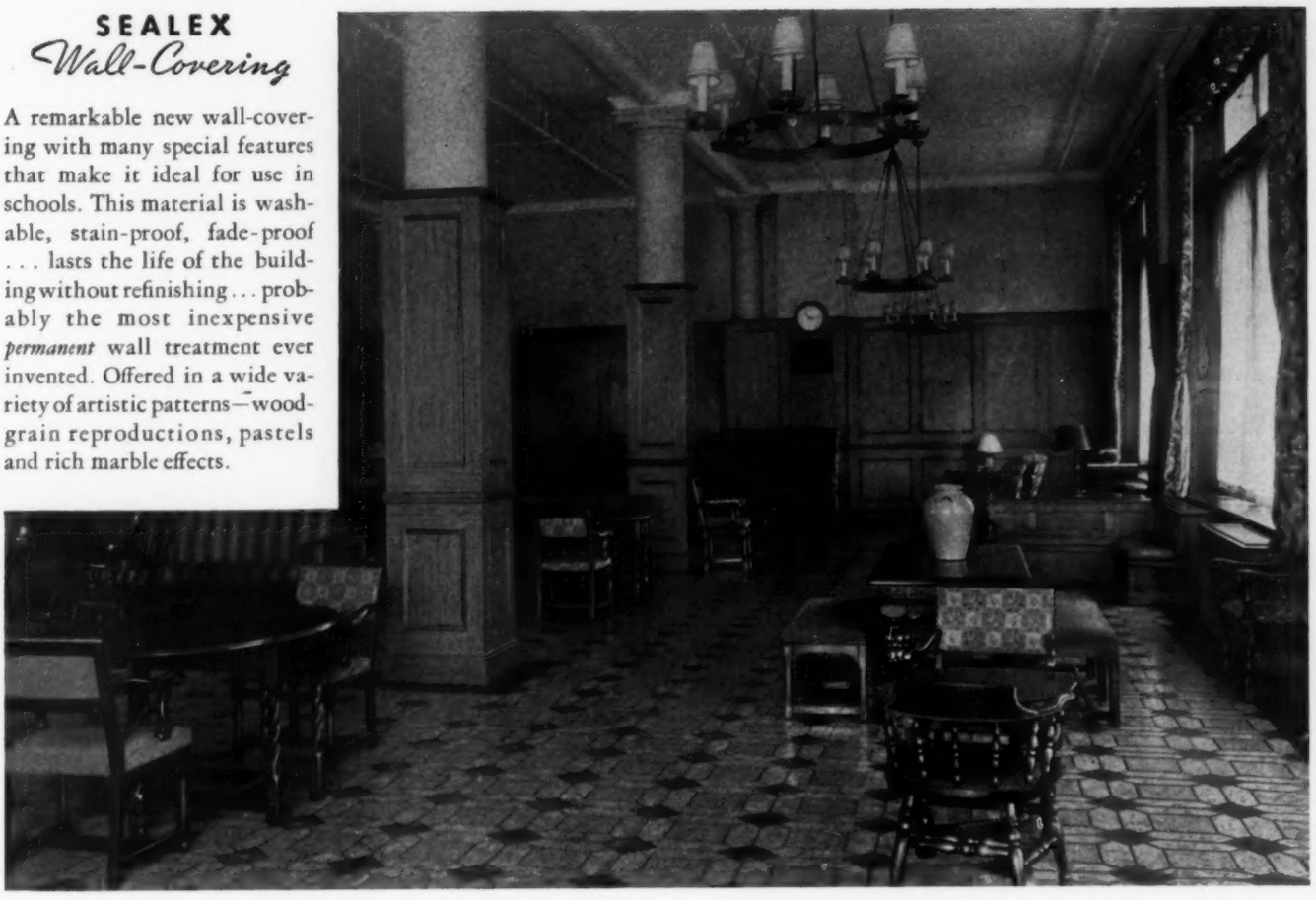
In 1925 the district began closing its one-room schools and providing bus transportation and by 1926 the entire school population was housed in four buildings. The district now operates seven large motor busses as well as a ten-ton tractor and snow plow to keep the roads open in the winter. The efficiency of this transportation system is attested by the attendance record of 97 per cent which is regularly maintained, as compared with an average of 87 per cent under the old system.

Altogether during the fifteen-year period the district has spent for buildings and transportation equipment approximately $750,000. The "bond burning" celebration marked the payment of the last of the outstanding indebtedness.

Irl H. Dulebohn is superintendent of schools of the district.

SEALEX
Wall-Covering

A remarkable new wall-covering with many special features that make it ideal for use in schools. This material is washable, stain-proof, fade-proof . . . lasts the life of the building without refinishing . . . probably the most inexpensive *permanent* wall treatment ever invented. Offered in a wide variety of artistic patterns—wood-grain reproductions, pastels and rich marble effects.



Sealex passes entrance examination at *New York University*

BOTH Sealex Floors and Sealex Wall-Covering have met New York University requirements. Illustrated above is a recent installation of these materials in the Lassman Memorial Lounge.

The floor is Sealex Linoleum, a tile pattern in autumn colors—russet-red, warm browns and grays. The walls and columns are finished with the new Sealex Wall-Covering, in a pattern that suggests the beauty of age-mellowed walnut paneling. With floors and walls in perfect harmony, this room achieves an effect of restfulness and quiet distinction.

Sealex floors and walls are ideally suited for use in all types of school interiors—class rooms, corridors, library, auditorium, etc. Their first cost is low—yet they are built to give long service under difficult conditions. When floors are of Sealex Linoleum, the cost of scraping, painting, and varnishing wood floors is eliminated from the annual budget. Colors cannot wear off because they are inlaid right through the material. The Sealex Process makes Sealex products stain-proof and easy to maintain.

Sealex Linoleum is a really resilient floor. Reduction of "foot-noise" in class rooms, study halls and corridors is attained through the use of this shock-absorbing flooring.

In remodeling work, Sealex materials may be quickly applied directly over the old floor or walls. When installed by an authorized contractor of Bonded Floors or Bonded Walls, both materials and workmanship are backed by Guaranty Bonds. Write our Contract Department for additional information.

CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

SEALEX
REG. U. S. PAT. OFF.
LINOLEUM FLOORS

News of the Month (Cont'd)

Catholic Educators Will Meet in St. Paul

The thirtieth annual convention of the National Catholic Educational Association will be held in the municipal auditorium, St. Paul, Minn., June 26 to 29. Arrangements have been made to accommodate the general meetings, sectional meetings, exhibits and other activities of the convention in this building.

Rev. James A. Byrnes, diocesan superintendent of schools, St. Paul, is in charge of local arrangements for the convention. Father Byrnes and his committee will provide suitable accommodations for the Sisters, the clergy and other guests attending the convention.

There are in St. Paul three outstanding Catholic high schools: Cretin High School for Boys, with an enrollment of more than 700; St. Joseph's Academy, with an enrollment of between 400 and 500, and a girls' school which accommodates about 100 pupils.

Columbia University Offers Low Cost Summer Session

Attendance at summer sessions of the various schools of education probably will cost less in 1933 than at any time in the past. College apartment, dormitory and dining hall rates generally are lower. Railroad fares will be especially reduced for summer session students. It will be possible, for instance, to make the trip to New York City and return for fare and a quarter over many of the trunk lines entering New York.

Columbia University in all its schools has announced new apartment, dormitory, dining hall and cafeteria rates, effective July 1. This means that those attending the Columbia University summer session will have advantage of the lower living costs. Inasmuch as the university did not increase rates during the boom years, the reductions represent a substantial saving.

The Columbia summer session this year will cover the usual six weeks. Registration takes place July 6 to 8. Classes begin July 10 and close August 18.

Teachers College courses dealing with education and offered during the Columbia summer session include the following: elementary educational economics; social and economic forces underlying modern education; economic problems and education; sociology of educational problems; education and nationalism; the curriculum; problems of contemporary civilization and their bearing upon curriculum making; educational publicity: a study of public opinion—how it is created; educational administration conferences: problems confronting administrators in the current social and economic crisis; the organization of state support for public schools; educational administration: economy through better business administration of schools; philosophy of secondary education: unsettled issues confronting teachers and administrators in secondary education.

Summer Camp for Teachers at Commonwealth College

An inexpensive vacation with a chance to observe an unusual project in adult education is promised teachers attending the summer camp of Commonwealth College, Mena, Ark., which will be open from July to September.

The camp is to be held at the school site in the woods of the Ouachita Mountains. Recreational opportunities include swimming, games, hiking, dancing, dramatics and a social program. Lecture courses on present trends in economics, politics and American culture, at which attendance is optional, will be given during the ten weeks beginning July 3.

Visitors who desire to help with farm and community tasks may secure reduced rates.

New York City Has Fewer Part-Time Pupils

The percentage of pupils on part-time in New York City's elementary schools at the end of the school year of 1932 was 2.64, the lowest in the history of the city, according to the report of William J. O'Shea, superintendent of schools. The report also shows a continued decrease in the average daily register in day elementary schools. The decline is explained by the falling birth rate in the city and also in part by the infantile paralysis epidemic in the fall of 1931 when parents hesitated to register their children.

Registration in the senior high schools, on the other hand, shows an increase more rapid than the decrease in elementary school registration. High schools had 21,069 more pupils for the year. This, according to Mr. O'Shea, is due to "the increasing tendency for business concerns to accept for positions only persons with at least some high school education, and second, the business depression which has forced many pupils to remain in school because of the scarcity of positions."

New York State Changes School Retirement Law

The Crawford Bill, allowing school employees to serve until the end of the term in which their seventieth birthday falls, has been signed by Governor Lehman, of New York State. The bill designates that for retirement purposes, the end of the fall term will be January 31 and of the spring term, August 31. The passage of the Crawford Bill means that William J. O'Shea, superintendent of schools, New York City, who will reach the age of seventy years in October, will retire from office on January 31.

Colleges Offer Summer Courses in Sight Conservation

Training courses for teachers and supervisors in sight conservation will be offered under the auspices of the National Society for the Prevention of Blindness during the summer at the following schools: Western Reserve University, Cleveland, June 19 to July 28; University of Chicago, June 26 to August 1; Teachers College, Columbia University, July 10 to August 18. A course will probably be offered also at State Teachers College, Buffalo, N. Y. Sight saving classes are now a part of the educational system in 119 communities in the United States.

Information may be obtained at the respective colleges or from the National Society for the Prevention of Blindness, 450 Seventh Avenue, New York City.

SAVE MINUTES *and* SCHOOL DOLLARS WILL GO FARTHER . . .

Today's school time is more valuable than ever before . . . each minute saved and used to better advantage helps to reduce the teaching cost per pupil.

International Electric Time and Program Systems in hundreds of schools have proved their ability to turn wasted minutes into productive channels . . . to make more time available for student development.

Administrators, released from the tedious routines of schedule control and maintenance, may devote more time to constructive supervisory work. Class movement is accomplished in less time and without hurry or confusion.

Clocks and bells in every classroom are kept automatically in agreement . . . thus insuring exact adherence to all schedules and preventing period over-lapping.

These are but a few of the ways in which International Self-Regulating Time Equipment saves school minutes . . . and operating funds.

An International representative in your vicinity will be glad to give you full details and actual demonstration.

International Electric Time is official time at the Century of Progress Exposition . . . a single system providing 424 acres of grounds and buildings with clocks that automatically maintain their own accuracy.

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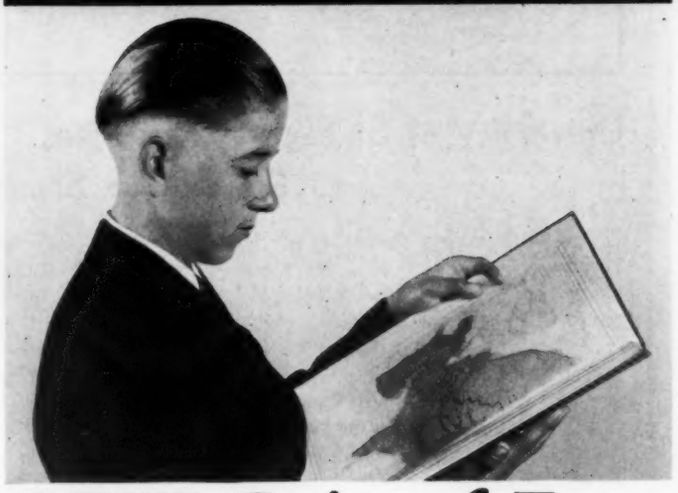
Controlled DAYLIGHT Protects The Eyes of Youth!



ONE Pair of Eyes *must carry him through life . . .*

HERE he is—a future citizen seeking an education! You can't afford to impair his eyesight at a critical period with harsh glare, confusing streaks of light and twilight zones caused by improper daylight intensities in the classroom. Let the diffused Controlled Daylight of Western Venetian Blinds safeguard the only pair of eyes he'll ever have!

Western Venetian Blinds are essential to the visual sense, nerves, muscles and energy capacities because they give glareless light in proper intensities, on every desk—in every corner—on all blackboards of a classroom. Western Venetian Blinds control ventilation also—easily, accurately.

Write for our Brochure on Daylight Illumination for classrooms. It explains how Western Venetian Blinds aid you in protecting the Eyes of Youth. . . No obligation, of course!

Photometric Test—free of charge!

Why not learn the scientific truth about illumination in your classroom? Our Photometric test is free for the asking. Drop us a post card and one of our Illumination Experts will be glad to make this test in your classroom, free of charge, anywhere, any time.

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"World's Largest Exclusive Manufacturer of Venetian Blinds"
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SALES REPRESENTATIVES IN ALL MAJOR CITIES

News of the Month (Cont'd)

University of Chicago Makes Plans for a Large Summer Enrollment

Summer quarter studies at the University of Chicago will be supplemented by a number of specially organized conferences of interest to special groups in what promises to be the largest summer enrollment the university has ever had. The normal summer quarter attendance will be greatly increased because of A Century of Progress Exposition, which will have much material of educational value. The exposition has attracted the annual meetings of the great majority of the country's learned societies, as well as those of many international groups.

The summer quarter announcements of the university list 378 courses in the divisions, exclusive of a full program in the clinical departments of the biologic sciences divisions. The department of education has the largest total of course offerings, fifty-nine.

Two important conferences are to be sponsored by the department of education. The Institute for Administrative Officers of Institutions of Higher Education, on July 12, 13 and 14, provides for consideration of the topic of "Temporary and Permanent Readjustments in Higher Education to Meet New Conditions" by officers and teachers of junior colleges, colleges and universities. During the week of July 17-21, there will be a conference of public school administrative officers, to be conducted by members of the department of education and special lectures.

The six special courses offered teachers and administrative officers on the new college plan is arousing wide interest. The development and administration of the plan and the possibilities of adapting it in whole or part to high schools and colleges will be explained by members of the university faculty who have been most active in its development.

One of the six special courses will deal with the general administrative aspects of the plan, another will be concerned with the operation of the comprehensive examination system, and the other four courses will be on the general introductory courses in each of the divisions of the humanities, the physical sciences, the biologic sciences and the social sciences.

The School of Business will hold a conference on business education on July 29 and 30, in which leaders in the field of business education will participate.

Trustees Avert Closing of St. Stephen's College

The trustees of St. Stephen's College, New York City, have decided that the institution, which it had been feared would have to be closed for lack of funds, could continue with a reduced budget and nominal deficit as recommended by a committee of the trustees. Material cooperation was given by the faculty, whose members volunteered to accept reductions in salary.

There will be no loss in efficiency and no departure from educational ideals in the economical course to be followed in 1933-34, William Harrison, college secretary, said. The budget contemplates a complete educational program recommended by a committee representing Columbia University.

The trustees reminded Bishop William T. Manning and Dr. Nicholas Murray Butler, president, Columbia University, that the resignation of the Rev. Dr. Bernard Iddings Bell as warden of the college would become effective in June, 1934, and bespoke their assistance in selecting a successor, not necessarily a clergyman.

Value of Motion Pictures in Education Is Studied

With a view to establishing a chain of motion picture schools, Welsh educators are conducting experiments at special matinees where the reaction of children to educational films is studied. Children of elementary school age attending these matinees, says a report to the U. S. Department of Commerce from its trade commissioner in London, are observed by a group of educators and their reaction noted.

Each child is given a questionnaire designed to elicit opinions on certain aspects of the films viewed. Adults are also invited to the showing and their opinions recorded.

Although no definite information has been made public, says the report, producers expect that the results of experiments will lend considerable support to the movement for more educational films.

Series of Books on School Economies Will Be Published

Dr. Ray Lyman Wilbur has assumed the active editorship of a series of books on current educational problems, the "School Economy Series," to begin publication this month at Stanford University Press.

The volumes, which will be written by national authorities, are intended to provide practical guidance in matters of school finance, organization, and administration under present day conditions.

The school problem has held Doctor Wilbur's close interest both as president of Stanford University and as secretary of the interior in the Hoover administration, in which capacity he was head of the U. S. Office of Education.

Titles and authors announced thus far include the following:

"Economy in Education," by William John Cooper, U. S. Commissioner of Education; "Teachers' Salaries and the Cost of Living," by Walter Crosby Eells, Stanford University; "Fads and Frills in Education," by Rollo G. Reynolds, principal, Horace Mann School, Columbia University; "The Rural School," by Jean L. Soules, superintendent of schools, Spokane County, Washington; "Selecting Teachers," by Howard R. Taylor, University of Oregon; "School Publicity," by Belmont Farley, National Education Association; "School Finance," by William G. Carr, National Education Association, and "Compulsory Education," by Hollis P. Allen, Claremont College, Claremont, Calif.

Two of the books, "Economy in Education and "Teachers' Salaries and the Cost of Living" already have been published. Others will appear soon.

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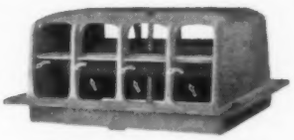

NEW No. 3 IMPROVED TYPE

These adjustable Air Deflectors are a direct economy as they permit the use of smaller size ducts.

There is nothing to hinder full delivery; the screw type damper can be easily adjusted; the one piece cast iron construction gives ample strength and long life.

Installation data upon request

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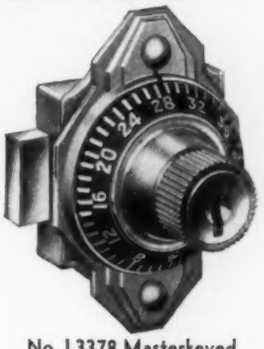
TWO ADDITIONAL NEW YALE COMBINATION LOCKER LOCKS

WE present two new numbers, each designed for a specific purpose, numbers L3368 and L3378 for lockers with gravity type bolt mechanism and numbers L3369 and L3379 for box lockers, etc. These new additions together with numbers L3364 and L3374 for automatic bolt release mechanism (previously announced) round out our line of combination locker locks.

No. L3369—dial operated only
(L3379 Masterkeyed)
This lock is designed for box lockers. It has a latch bolt—when door is closed it is automatically locked and combination dispersed.



No. L3378 Masterkeyed
(L3368 dial operated only)
Designed for replacement of flat key type locker locks on all makes of steel lockers. Operates with a dead bolt—bolt is thrown by turning the knob (dial) to locked position which automatically disperses combination.

Combinations may be changed without removing lock from door. Available in either cadmium plate or chromium finish dial escutcheon. Write for prices and any other information you desire.

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News of the Month (Cont'd)

National Survey of Secondary Education to Be Completed in the Near Future

"The most comprehensive and illuminating study of American secondary education ever made is now in process of publication," William John Cooper, retiring U. S. commissioner of education, declares in announcing a forthcoming series of twenty-eight monographs of the National Survey of Secondary Education. Mr. Cooper directed the survey.

Retrenchment in public school expenditures through changes in courses of study and similar modifications to meet the present economic emergency should be based upon these reports, according to Leonard V. Koos, professor of secondary education, University of Chicago, and associate director of the survey, in announcing results of the three-year investigation.

"The investigators were primarily concerned with a study of the unusual practices of schools rather than their ordinary features," according to Carl A. Jessen, specialist in secondary education, U. S. Office of Education, and coordinator of the survey. The survey concentrated on five major fields: (1) the organization of secondary schools; (2) student personnel problems; (3) administrative and supervisory problems; (4) curricular activities, and (5) extracurricular activities.

The following nine monographs have already been published: "Instruction in English," "Instruction in Mathematics," "Instruction in Music and Art," "Instruction in Science," "Secondary School Library," "Articulation of High School and College," "Health Work and Physical Education," "Research in Secondary Schools," and "Intramural and Interscholastic Athletics."

The other monographs reporting the National Survey of Secondary Education findings available from the Government Printing Office are:

"Summary," "The Horizontal Organization of Secondary Education—A Comparison of Comprehensive and Specialized Schools," "Part-Time Secondary Schools," "The Secondary School Population," "The Reorganization of Secondary Education," "The Smaller Secondary Schools," "Secondary Education for Negroes," "District Organization for Secondary Education," "Legal and Regulatory Provisions Affecting Secondary Education," "Administration and Supervision," "Selection and Appointment of Teachers," "Provisions for Individual Differences, Marking and Promotion," "Programs of Guidance," "Interpreting the Secondary School to the Public," "Procedures in Curriculum Making," "The Program of Studies," "Instruction in the Social Subjects," "Instruction in Foreign Languages," and "Nonathletic Extracurricular Activities."

Tome School Adopts Unique Tuition Plan

Tome School, Port Deposit, Md., an endowed boarding school has announced for next year a unique plan of tuition reduction that gives the parents the advantage of any savings due to increased enrollment of pupils.

The trustees of Tome School, according to R. J. Shortlidge, head master, have guaranteed a reduction of $200 in the tuition rate, with the anticipation of the school's enrollment to reach 100 boys as a minimum. If 150 boys are enrolled, $225 more will be saved each parent; if 200 are enrolled, the rate will drop another $125.

The plan provides for balancing the budget and at the same time encouraging enrollments by lowered tuition. It differs from the well known Kent School plan where each parent is told the average cost per pupil and is asked to write a check for as large an amount as conscience and income will permit.

The school's enrollment counsel recently completed a survey of more than 200 private schools to determine the trend in tuition rates. It was found that while 40 per cent of the respondent schools are reducing rates for next year, few of the leading Eastern schools for boys are doing so. Most head masters say that smaller enrollments with continued high overhead prevents a reduction in rates.

Pennsylvania State College Plans Summer Session

Pennsylvania State College will hold its twenty-fourth summer session from July 3 to August 11. The program will include, in addition to the main session, an intersession, from June 19 to June 30, and a postsession, from August 14 to August 25.

Courses have been designed especially for elementary and secondary school teachers, supervisors and administrators. An extended program has been arranged in guidance, testing, educational hygiene and curriculum construction.

Denver Graduates Train Guns on Unemployment

Denver Progressive Youth, Associated, is the name of an organization of approximately 600 high school seniors of Denver who have banded together to solve the problem of maintaining, after their graduation in June, a program of activities that will provide for them worth while use of the leisure that the economic situation is likely to thrust upon them.

The movement was begun on April 4 by a group of adults, all of them leaders in the educational and cultural life of Denver. From this group a smaller committee was formed, which in turn met with representatives of the senior classes of the various high schools of the city. These seniors met with their classmates, formed committees in each school, and have since launched a program destined to provide educational, recreational, cultural, vocational and community service activities for the hundreds of young people who have signified a desire to participate in the movement.

A major committee of five seniors is heading the work in each high school.

Approximately 40 per cent of the pupils graduating from the senior high schools of Denver in 1931 went on to college. Principals of the Denver high schools estimate that not more than 30 per cent of the 2,100 graduates of 1933 will enter college in the fall, and that 70 per cent, or approximately 1,500 of these seniors, hope to find employment.

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See Sweet's—Pages D714-723

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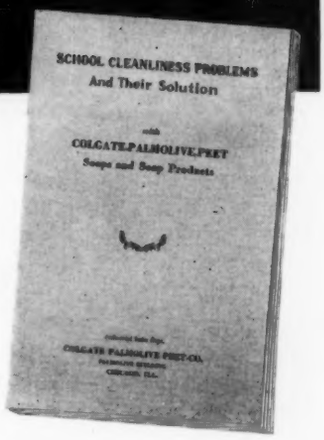

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In the Educational Field

ASHLEY MELVIN MCCULLOUGH, of Lyons, Kan., has been appointed superintendent of schools, Fairfield, Conn., to succeed WILLIAM E. SMITH. MR. MCCULLOUGH served for several years as superintendent of the school systems in Senesco, Wilson, Payola and Wellington, Kan.

REV. SHERRARD BILLINGS, one of the three founders of Groton School, Groton, Mass., and a master there since 1884, died on May 9. He was seventy-four years of age. MR. BILLINGS was senior master of the school.

ALBERT L. WISEMAN, superintendent of schools, Beebeetown, Iowa, has been elected superintendent of schools, Calhoun County, Iowa, succeeding RUBIE MELODY.

MORRIS E. MCCARTY, who has been acting superintendent of schools, Lafayette, Ind., since July, 1932, has been appointed superintendent of the city's school system.

WILLIAM H. BUKER, superintendent of schools, Rochester, N. H., since 1923, has resigned to accept the superintendency at Shelburne Falls, Mass. MR. BUKER will assume his new post on August 1.

DR. PATRICK R. KINNEY, principal, Public School No. 71, the Bronx, N. Y., has been decorated by the Italian Government by having conferred on him the Order of Chevalier.

JAMES BRYANT CONANT, Sheldon Emery professor of organic chemistry, is the new president of Harvard University. One of the youngest in the long line of Harvard presidents, PROFESSOR CONANT is in his forty-first year. His predecessor, A. LAWRENCE LOWELL, resigned, was fifty-two when he took office in 1909.

DR. SHAILER MATHEWS, for twenty-five years dean of the divinity school, Chicago University, retired recently on the occasion of his seventieth birthday.

B. A. FOWLER is retiring as superintendent of schools, Weber County, Utah, and will be succeeded by KEITH WAHLQUIST.

JAMES M. MCCONNELL, state commissioner of education for Minnesota, and prominent in the educational field for many years, died recently.

THAD JOHNSON KNAPP, superintendent of schools, Northville, Mich., for the past three years, and head of the school system at Highland Park, Mich., from 1911-26, died recently. MR. KNAPP served as president, Michigan Education Association, in 1920.

DR. EUGENE A. COLLIGAN, associate superintendent of schools, New York City, has been appointed president, Hunter College, succeeding DR. JAMES KIERAN, retired.

AMANDA E. STOUT, superintendent of schools, Reading, Pa., the only woman superintendent of schools in Pennsylvania and one of the few in the United States, died on May 5 of heart disease. MISS STOUT had been associated with the Reading school system for many years. She was appointed assistant superintendent in 1919, and ten years later was named superintendent. THOMAS H. FORD, assistant superintendent, has been elected acting superintendent.

R. O. BORRESON, Omaha, Neb., has been elected superintendent of schools, Manilla, Iowa.

G. W. GREENE, Anacortes, Wash., has been elected superintendent of schools, Sedro-Woolley, Wash., succeeding C. PAINE SHANGLE, who has been appointed superintendent of schools, Bellingham, Wash.

JOHN O. CHEWNING, superintendent of schools, Evansville, Ind., is on a leave of absence until April 1, 1934. MR. CHEWNING'S position will be filled by RALPH IRONS during his absence.

LADIMIR M. HRUDKA, head of the department of education, South Dakota State College, Brookings, has been appointed superintendent, J. Sterling Morton High School, Cicero, Ill.

WALTER PRICHARD EATON, drama critic and playwright, has been appointed professor of playwrighting, drama school, Yale University, succeeding GEORGE PIERCE BAKER.

LILY WOLF, principal, Pierrepont School, Rutherford, N. J., for the past twenty-six years, died May 17. MISS WOLF, who was fifty-five years old, was to have retired next month.

THOMAS H. ADAMS, for the last three years, superintendent of schools, Dixon, Neb., has been elected to head the public schools system at Verdigre, Neb.

WILLIS A. SUTTON, superintendent of schools, Atlanta, Ga., and a former president of the National Education Association, was injured recently in an automobile accident near Portal, Ga. It is reported that he is progressing favorably.

RAYMOND C. BURDICK, superintendent of schools, Watertown, N. Y., for the past eight years, has been appointed superintendent of schools, Huntington, Long Island, N. Y.

PROF. WALTER C. EELLS, school of education, Stanford University, has been granted sabbatical leave for 1933-34. PROFESSOR EELLS will spend his leave in Washington, D. C., where he will carry on special research in the field of higher education under a grant from the Carnegie Foundation.

WILLIAM A. ANDREWS, superintendent of schools, Ballston Spa, N. Y., since 1923 and from 1909 to 1923 supervising principal of the school system, has tendered his resignation, effective July 1.

DR. C. C. WRIGHT has retired as superintendent of schools, Wilkes County, North Carolina, after thirty-four years' service.

DR. MABEL S. DOUGLASS, dean, New Jersey College for Women, New Brunswick, since its establishment in 1918, has resigned her post, having been on leave of absence during the present academic year due to ill health. PROF. ALBERT E. MEDER, who has been serving as acting dean, will continue in that capacity until a successor to DOCTOR DOUGLASS is chosen.

DR. WILLIAM JOSEPH MCGLOTHLIN, president, Furman University, Greenville, S. C., died recently of injuries sustained in an automobile accident.

MRS. CALVIN COOLIDGE has been elected the first woman trustee of Mercersburg Academy, Mercersburg, Pa., which her sons John and the late Calvin Jr. attended.

D. F. OLDS, superintendent of schools, Wapato, Wash., has been selected to succeed F. M. Lash as superintendent of schools, Camas, Wash.

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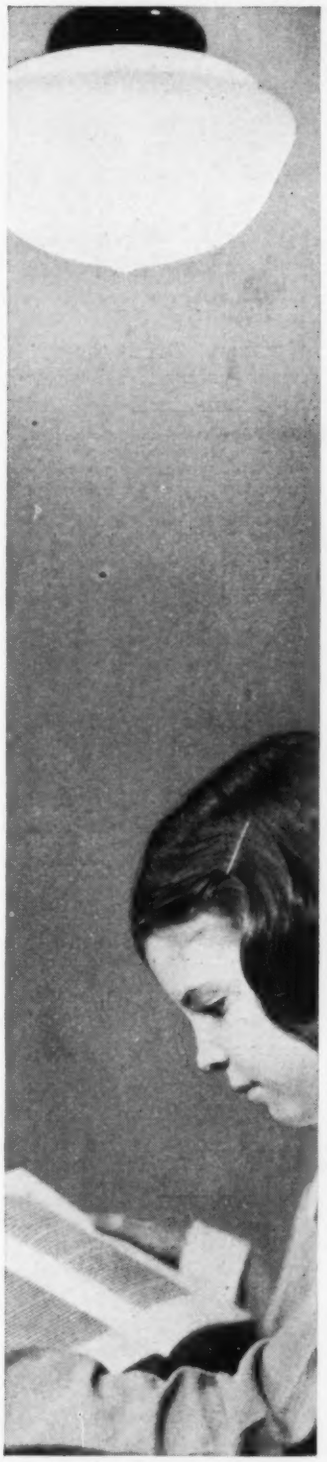

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In the Educational Field

E. C. HOCMER, superintendent of schools, Ellenville, N. Y., has resigned to accept the post of supervising principal, Central School, Hancock, N. Y. MR. HOCMER has served as head of the Ellenville schools for twenty-two years.

DR. CHARLES A. RICE, superintendent of schools, Portland, Ore., has been elected president, Inland Empire Education Association.

FRANK P. MORSE, state supervisor of secondary education in Massachusetts for the past seven years, will retire from office at the end of the present school year. His successor has not been announced.

J. F. OVERMYER, superintendent of schools, Algona, Iowa, for the past thirty years, is retiring at the end of the present school year.

HERMAN BURCHILL has been named superintendent of schools, Maddock, N. D.

LEONARD J. SMITH, superintendent of schools, third supervisory district, Suffolk County, New York, has resigned, due to ill health.

FRANCIS J. FAHRENHOLZ has been elected superintendent of schools, third supervisory district, Washington County, New York, to succeed ROSE E. GIBBONS.

JOHN GRIER HIBBEN, president of Princeton University until his retirement a year ago this month as president emeritus, was killed on May 16 in an automobile accident.

CHARLES BUTTERFIELD has been appointed superintendent of schools, Corunna, Mich., succeeding B. M. HAMILL, superintendent for the past several years.

L. H. DENNIS, deputy superintendent of the Pennsylvania department of public instruction and director of the state bureau of vocational education for the past fourteen years, resigned recently.

E. G. LIGHTBODY has been elected superintendent of schools, Sargent, Neb.

RAMSAY HARRIS has been appointed headmaster, Norton School, Claremont, Calif. MR. HARRIS was formerly associated with the English department, Pomona College.

C. H. BOWERS, supervising principal, Portage Township schools, Cambria County, Pennsylvania, for more than eight years, has been appointed superintendent of schools, Nanty-Globorough, Pa.

ERNEST W. FELLOWS, superintendent of schools, Gloucester, Mass., was elected president, Massachusetts School Superintendents' Association at the organization's recent meeting.

LLOYD BEHRENDS has been elected superintendent of schools, Weeping Water, Neb.

M. L. OLSON, superintendent of schools, Alexandria, S. D., for the last ten years, has resigned his position.

JOHN C. WEST, superintendent of schools, Grand Forks, N. D., has been appointed president, University of North Dakota, to succeed THOMAS F. KANE, whose resignation becomes effective July 1. MR. WEST had been principal and superintendent of various schools in Minnesota prior to assuming the superintendency of the Grand Forks schools.

CHARLES EASTON, Tower Hill School, Wilmington, Del., has been appointed headmaster, Staten Island Academy, New Brighton, S. I., N. Y., effective next September.

MARY BOYD, Boone, Iowa, county superintendent of schools, will be succeeded next September by MARVIN J. COOPER, principal of the high school, Dolliver, Iowa.

J. F. HINES, superintendent of schools, Plankinton, S. D., has been appointed deputy state superintendent of public instruction, effective July 1.

BURTON R. JONES, superintendent of schools, Spencer, Iowa, for the past five years, has resigned in order to head the public schools of Creston, Iowa. The new superintendent at Spencer is HAROLD WILLIAMS, who for the past ten years has headed the school system at Belmond, Iowa.

L. E. DELANEY, superintendent of schools, Sayre, Pa., has been granted a year's leave of absence.

A. B. WILKINS was recently elected superintendent of schools, Cumberland County, North Carolina. MR. WILKINS has been associated with the Cumberland County schools since 1925.

O. E. TAYLOR, superintendent of schools, Galena, Ill., for the last five years, died recently. MR. TAYLOR was sixty-two years of age at the time of his death.

GLENN E. LOOMIS will be superintendent of schools, Big Rapids, Mich., beginning next fall, succeeding J. W. KELDER. MR. LOOMIS has been principal of the Big Rapids High School since 1920.

E. S. TAYLOR, principal, Mt. Carmel High School, Mt. Carmel, Pa., has been appointed superintendent of schools of that city to succeed the late WILBUR M. YEINGST.

Miller Heads Association of School Officials

Joseph Miller, Jr., secretary, board of education, New York City, for the past twelve years, was elected president of the National Association of Public School Business Officials at the organization's annual meeting in Pittsburgh. Other officers include James J. Ball, Denver, vice president; John S. Mount, Trenton, N. J., secretary, and Henry W. Huston, also of Trenton, treasurer.

John Effinger Dies; Dean at Michigan U.

John R. Effinger, since 1915 dean of the college of literature, and for forty-one years a member of the French faculty, University of Michigan, died at his home in Ann Arbor on June 7. He was sixty-three years old.

For years Dean Effinger was a leader in higher education in the central states, and used his influence to raise the standards of colleges and universities. In 1926 Dean Effinger was president of the Association of American Colleges. He has served as a member of the commission on higher education of the North Central Association of Colleges and Secondary Schools since 1923. He was the author of a French grammar and had edited works of Hugo, Molière and St. Beuve.